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VOL. XIII

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CATALOGUE OF BIRDS OF THE AMERICAS

BY

CHARLES E. HELLMAYR

Associate Curator of Birds

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PART VI

OXYRUNCIDAE - PIPRIDAE - COTINGIDAE

RUPICOLIDAE - PHYTOTOMIDAE

---

WILFRED H. OSGOOD

Curator, Department of Zoology

EDITOR



CHICAGO, U. S. A.

November 14, 1929

*Recd Nov 15, 1929*



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ZOOLOGICAL SERIES

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CATALOGUE OF BIRDS OF THE AMERICAS  
AND THE ADJACENT ISLANDS

IN  
FIELD MUSEUM OF NATURAL HISTORY

INCLUDING ALL SPECIES AND SUBSPECIES KNOWN TO OCCUR IN NORTH  
AMERICA, MEXICO, CENTRAL AMERICA, SOUTH AMERICA, THE WEST  
INDIES, AND ISLANDS OF THE CARIBBEAN SEA, THE GALAPAGOS  
ARCHIPELAGO, AND OTHER ISLANDS WHICH MAY BE IN-  
CLUDED ON ACCOUNT OF THEIR FAUNAL AFFINITIES

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## PREFACE TO PART SIX

The present instalment concludes the enumeration of the American Mesomyodian Passeres, the other families of that section having been dealt with in the three preceding parts. For the sake of convenience, it has been deemed advisable not to include in Part VI any other family, but to restrict it to the catalogue of the Manakins, Chatterers and allies, which form a natural group of closely related birds.

As stated in the preface to Part V, proper definition of the various families of the Mesomyodian Passeres, particularly of the Haploophonae, is unusually difficult owing to the incompleteness of data on their anatomical structure, and the reference of certain genera to one family rather than to another must largely be regarded as provisional. Moreover, the exact status of two groups now ranked as families—the Sharp-Bills and the Cocks-of-the-Rock—is quite unsettled, and further researches into their anatomical peculiarities may lead to their suppression.

Publication of this volume has unexpectedly been delayed. The greater part of the manuscript having been compiled in 1926 and 1927, the results of recent investigations by other students have not been considered beyond their inclusion in footnotes, wherever it was possible to make such additions. On the other hand, the long time that has elapsed since its preparation afforded me an opportunity to examine much pertinent material (including many types) in various museums in this country as well as in Europe. The account of certain genera of Manakins is practically based on the splendid series of these birds in the collections at Pittsburgh and Munich.

As in the past, the author has enjoyed, in the performance of his task, the cooperation of museums and numerous correspondents by the generous loan of material and other acts of courtesy for which he wishes to publicly express his gratitude.

Acknowledgments are particularly due to Mr. Outram Bangs, of the Museum of Comparative Zoology, Cambridge, Massachusetts; Mons. J. Berlioz, of the Muséum d'Histoire Naturelle, Paris; Dr. F. M. Chapman, of The American Museum of Natural History, New York; Mr. C. F. Cooper, of the University Museum, Cambridge, England; Mr. Donald R. Dickey and Mr. A. van Rossem, of Pasadena, California; Count Nils Gyldenstolpe, of the Stockholm Museum,

Sweden; Mr. N. B. Kinnear, of the British Museum, London, England; Dr. A. Laubmann, of the Zoological Museum, Munich; Dr. C. W. Richmond and Mr. J. H. Riley, of the U. S. National Museum, Washington, D. C.; Lord Rothschild, of Tring, England; Dr. Simpson, of the Free Public Museums, Liverpool, England; Dr. E. Stresemann, of the Zoological Museum, Berlin, Germany; and Mr. W. E. Clyde Todd, of the Carnegie Museum, Pittsburgh, Pennsylvania.

Mr. Charles Westcott, of Springfield, Massachusetts, again has been very helpful in checking references and revising the manuscript for the press.

NOVEMBER 2, 1929

C. E. HELLMAYR



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# CATALOGUE OF BIRDS OF THE AMERICAS

By Charles E. Hellmayr

## PART VI

ORDER PASSERIFORMES—Continued.

Suborder MESOMYODI—Continued.

FAMILY OXYRUNCIDAE.<sup>1</sup>

SHARP-BILLS.

Genus **OXYRUNCUS** Temminck.

*Oxyruncus* TEMMINCK, Anal. Syst. Gén. d'Orn., in Man. d'Orn., 2nd ed., 1, p. LXXX, Oct., 1820—generic characters, but no genotype indicated.

*Oxyrhynchus* SWAINSON, Zool. Illust., 1, No. 9, pl. 49, July, 1821—new name for *Oxyruncus* TEMMINCK; type by monotypy *Oxyrhynchus cristatus* SWAINSON.

*Oxyrhynchus* (not of LEACH, 1816) TEMMINCK, Nouv. Rec. Pl. Col., livr. 21, pl. 125, April, 1822—type by monotypy *Oxyrhynchus flammiceps* TEMMINCK = *Oxyrhynchus cristatus* SWAINSON.

*Oxyramphus* STRICKLAND, Ann. Mag. Nat. Hist., 6, p. 420, 1841—new name for *Oxyrhynchus* TEMMINCK, preoccupied.

*Oxyramphus* BONAPARTE, Conspect. Av., 1, p. 211, 1850—emendation.

\**Oxyruncus cristatus cristatus* (Swainson). CRESTED SHARP-BILL.

*Oxyrhynchus cristatus* SWAINSON, Zool. Illust., 1, No. 9, pl. 49, July, 1821—Brazil.

*Oxyrhynchus flammiceps* TEMMINCK, Nouv. Rec. Pl. Col., livr. 21, pl. 125, April, 1822—Brazil.

*Oxyrhynchus serratus* MIKAN, Del. Flor. et Faun. Bras., fasc. 3, pl. [17], 1823—Rio de Janeiro (descr. adult and young).

*Oxyramphus flammiceps* BURMEISTER, Syst. Übers. Th. Bras., 3, p. 33, 1856—Brazil; PELZELN, Orn. Bras., 1, p. 42, 1868—Rio de Janeiro and Rio

<sup>1</sup>The affinities of this family are not satisfactorily determined, and it may become necessary to merge it with the Cotingidae.

Paraná, São Paulo; BERLEPSCH, Journ. Orn., 21, p. 254, 1873—Blumenau, Santa Catharina; SCLATER, Cat. B. Brit. Mus., 14, p. 281, 1888—"Novo" Friburgo, Brazil; IHERING, Rev. Mus. Paul., 3, p. 206, 1899—Iguapé, São Paulo; idem, I. c., 4, p. 156, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 296, 1907—Estação Rio Grande, Iguapé, Itapura, and Ubatuba (São Paulo), Marianna (Minas Geraes), and Espirito Santo; BERTONI, Rev. Inst. Parag., 1907, (sep. p. 5)—Paraguay.

*Oxyruncus cristatus cristatus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 333, 1907—southeastern Brazil.

*Oxyrhamphus flammiceps paraguayensis* CHUBB, Ibis, 1910, p. 597—Sapucay, Paraguay.

*Oxyruncus flammiceps paraguayensis* BERTONI, Faun. Parag., p. 57, 1914—Sapucay, Paraguay.

Range: Wooded region of southeastern Brazil, from Espirito Santo and southern Minas Geraes (Marianna) to Santa Catharina, and Paraguay (Sapucay).<sup>1</sup>

1: Brazil (Victoria, São Paulo 1).

***Oxyruncus cristatus hypoglaucus* (Salvin and Godman).<sup>2</sup> WHITE-BELLIED SHARP-BILL.**

*Oxyrhamphus hypoglaucus* SALVIN and GODMAN, Ibis, (5), 1, p. 206, 1883—Roraima and Merumé Mountains, British Guiana; SALVIN, I. c., 1885, p. 291—same localities; SCLATER, Cat. B. Brit. Mus., 14, p. 282, 1888—same localities.

*Oxyruncus hypoglaucus* CHUBB, Birds Brit. Guiana, 2, p. 240, 1921—Roraima and Merumé Mountains.

Range: Mountain ranges of British Guiana (Roraima, Merumé).

***Oxyruncus cristatus brooksi* Bangs and Barbour.<sup>3</sup> BROOKS'S SHARP-BILL.**

<sup>1</sup>Birds from Paraguay appear to be inseparable from others taken in Brazil. When describing *O. f. paraguayensis*, Chubb compared the Paraguayan series with a number of old skins of faded coloration. Recently collected Brazilian specimens, however, are fully as bright, both above and below, as Foster's birds from Sapucay.

Material examined.—Brazil: Rio de Janeiro 5; Rio Paraná, São Paulo 1; Victoria, São Paulo 4; Blumenau, Santa Catharina 1.—Paraguay: Sapucay 5.

<sup>2</sup>*Oxyruncus cristatus hypoglaucus* (SALVIN and GODMAN): Similar to *O. c. cristatus*, but under parts white, with only the sides and tail coverts tinged with pale greenish yellow; lores and cheeks white instead of pale yellow; median upper wing coverts more conspicuously margined with yellow; back slightly brighter green.

Material examined.—British Guiana: Roraima 6.

<sup>3</sup>*Oxyruncus cristatus brooksi* BANGS and BARBOUR: Nearest to *O. cristatus frater*, and wings similarly marked; but under parts white, washed with pale greenish yellow on sides and tail coverts only, as in *O. c. hypoglaucus*, and black

*Oxyruncus brooksi* BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 220, 1922—Mount Sapo, eastern Panama (type examined); GRISCOM, l.c., 69, p. 178, 1929—Cana.

Range: Eastern Panama (Mount Sapo and Cana, Darién).

\**Oxyruncus cristatus frater* (Sclater and Salvin).<sup>1</sup> COSTA RICAN SHARP-BILL.

*Oxyrhynchus frater* SCLATER and SALVIN, P.Z.S. Lond., 1868, p. 326—Calovevora, Veragua; idem, Exotic Orn., Part 9, p. 131, pl. 66 (adult female and young), 1868—Veragua and Costa Rica; SALVIN, P.Z.S. Lond., 1870, p. 194—Calovevora and Chitrá, Veragua; SCLATER, Cat. B. Brit. Mus., 14, p. 281, 1888—Calovevora and Castillo, Veragua, and Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 2, 1888—Costa Rica and Panama.

*Oxyrhynchus flammiceps* (not of TEMMINCK) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 106, 1868—San José, Costa Rica; FRANTZIUS, Journ. Orn., 17, p. 304, 1869—Orosi, Costa Rica; SALVIN, Ibis, 1869, p. 314—Costa Rica (crit.).

*Oxyruncus cristatus frater* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 334, 1907—Panama and Costa Rica (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 736, 1910—Santa María de Dota, San Carlos, La Vijagua, and Cariblanco de Sarapiquí, Costa Rica (habits).

Range: Costa Rica and Panama (Chiriquí and Veraguas).

1: Costa Rica (Buena Vista de San Carlos 1).

## FAMILY PIPRIDAE.

### MANAKINS.

#### Genus *PIPRITES* Cabanis.

*Piprites* CABANIS, Arch. Naturg., 13, (1), p. 234, 1847—type by monotypy *Pipra pileata* TEMMINCK.

*Hemipipo* CABANIS, l.c., p. 234, 1847—type by subs. desig. (GRAY, 1855, p. 55) *Pipra chloris* TEMMINCK.<sup>2</sup>

spots less numerous and more restricted than in any other race, becoming evanescent on the flanks. Superficially resembling *O. c. hypoglaucus* in white under parts, but back much brighter as well as more yellowish green, and larger wing coverts and tertials much more broadly margined with yellow. Wing (adult male) 90, (female) 88-90; tail 54-57; bill 16-18.

Material examined.—Panama: Mount Sapo (including the type) 3.

<sup>1</sup>*Oxyruncus cristatus frater* (SCLATER and SALVIN): Like *O. c. cristatus* with yellow under parts; but above much brighter, fresher green and wing coverts as well as tertials much more broadly edged with yellow.

Material examined.—Costa Rica: La Vijagua 2, San Carlos 2.—Panama: Boquete, Chiriquí 1.

<sup>2</sup>The insignificant divergency in structure and the similarity of the sexes seem hardly sufficient grounds for generic separation of this group.



**Piprites pileatus (Temminck). PILEATED MANAKIN.**

*Pipra pileata* (NATTERER MS.) TEMMINCK, Nouv. Rec. Pl. Col., livr. 29, pl. 172, fig. 1 (male), Dec., 1822—Brazil = Curityba, state of Paraná (descr. of male and female).

*Piprites pileata* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 449, 1856—Brazil.

*Piprites pileatus* PELZELN, Orn. Bras., 2, p. 126, 1868—Curytiba, Paraná (spec. examined); PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 1, pl. 1, (male, female), 1887—Curytiba; SCLATER, Cat. B. Brit. Mus., 14, p. 284, 1888—Brazil; IHERING and IHERING, Cat. Faun. Braz., 1, p. 297, 1907—Campos do Jordão, São Paulo; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 13, 1910—"Novo" Friburgo, Rio and Curytiba, Paraná; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 178, 1926—Invernadinha, Cara Pintada and Vermelho, Paraná.

Range: Wooded region of southeastern Brazil, from Rio de Janeiro (Nova Friburgo) to Paraná.<sup>1</sup>

**Piprites chloris chloris (Temminck). TEMMINCK'S MANAKIN.**

*Pipra chloris* (NATTERER MS.) TEMMINCK, Nouv. Rec. Pl. Col., livr. 29, pl. 172, fig. 2, Dec., 1822—Brazil (type from Ypanemá, São Paulo, in Vienna Museum examined).

*Piprites chloris* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 449, 1856—"Im Innern Brasiliens (Goyaz, Matto Grosso)", errore; PELZELN, Orn. Bras., 2, p. 126, 1868—Ypanemá, São Paulo (spec. examined); PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 3, pl. 2, fig. 1, 1887—Ypanemá; SCLATER, Cat. B. Brit. Mus., 14, p. 284, 1888—Brazil; IHERING, Rev. Mus. Paul., 3, p. 207, 1899—Piracicaba and Iguapé, São Paulo; idem, Cat. Faun. Braz., 1, p. 297, 1907—Piracicaba and Rio Feio, São Paulo; BERTONI, Rev. Inst. Parag., Asunción, p. 5, 1907—Alto Paraná, Paraguay, and Misiones; CHUBB, Ibis, 1910, p. 598—Sapucay, Paraguay; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 432, 1910—Paraguay and Misiones; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná.

*Piprites chloris chloris* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 13, pl. 2, fig. 8, 1910—São Paulo and Espirito Santo, Brazil; idem, Verh. Orn. Ges. Bay., 12, p. 137, 1915—Braço do Sul, near Victoria, Espirito Santo (crit.).

*Hemipipo chloris* SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 178, 1926—Salto de Ubá and Porto Mendes, Paraná.

Range: Wooded region of southeastern Brazil, from Espirito Santo to Paraná; Paraguay; northeastern Argentina (Misiones).<sup>2</sup>

**\*Piprites chloris chlorion (Cabanis). GRAY-BREASTED MANAKIN.**

*Hemipipo chlorion* CABANIS, Arch. Naturg., 13, (1), p. 234, 1847—Cayenne; idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 697, 1848—Cayenne.

<sup>1</sup>Material examined.—Rio de Janeiro: Nova Friburgo 1, Rio 1.—Paraná: Curityba 8.

<sup>2</sup>Material examined.—Brazil, São Paulo: Ypanemá (including the type) 5, Victoria 2, Fazenda Cayoá, Salto Grande do Rio Paranapanema 3; Braço do Sul, near Victoria, Espirito Santo 1.—Paraguay: Sapucay 2.

*Piprites chlorion* PELZELN, Orn. Bras., 2, p. 126, 1868—part, Barra do Rio Negro [=Manáos] and Borba, Rio Madeira (spec. examined); SALVIN and GODMAN, Ibis, 1882, p. 78—British Guiana (crit.); SALVIN, l.c., 1885, p. 299—Bartica Grove, Merumé Mts., and Roraima; PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 5, pl. 2, fig. 2 ("male"), 1887—part, descr. of male and hab. French and British Guiana, Barra [do Rio Negro], and Borba, Rio Madeira; SCLATER, Cat. B. Brit. Mus., 14, p. 285, 1888—Roraima, Bartica Grove, and Merumé Mts., British Guiana; SNETHLAGE, Journ. Orn., 55, p. 288, 1907—Cussary, lower Amazon (spec. examined); idem, l.c., 56, p. 504, 1908—Villa Braga, Rio Tapajóz (spec. examined); BERLEPSCH, Nov. Zool., 15, p. 315, 1908—Cayenne; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 361, 1914—Quati-purú, Rio Guamá (Santa Maria de São Miguel), Cussary, Rio Tapajóz (Goyana, Villa Braga), Rio Jary (Santo Antonio da Cachoeira); BEEBE, Zoologica (N.Y.), 2, p. 91, 1916—Utinga, Pará; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—Lelydorp, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 251, 1921—Ituribisi River, Supenaam, Bartica, Roraima, and Merumé Mts.; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Tury-assú, Maranhão.

*Piprites chloris chlorion* HELLMAYR, Nov. Zool., 17, p. 302, 1910—part, Borba, Rio Madeira; idem in WYTSMAN, Gen. Av., Part 9, p. 13, 1910—Cayenne, British Guiana, and northern Brazil; CHAPMAN, Amer. Mus. Novit., 138, p. 7, 1924—(?) foot of Mount Duida, upper Orinoco, and Cussary, lower Amazon; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 333, 1929—Tury-assú, Maranhão.

Range: French, Dutch, and British Guiana; northern Brazil, west to Manáos and the lower Rio Madeira (Borba), east to northern Maranhão (Tury-assú).<sup>1</sup>

1: Brazil (Tury-assú, Maranhão 1).

***Piprites chloris bolivianus* Chapman.<sup>2</sup> BOLIVIAN GREENISH MAN-AKIN.**

<sup>1</sup>Specimens from British Guiana are conspicuous for their grayish hind neck and their uniform pale gray breast and abdomen, strongly contrasted with the yellow throat and tail coverts, while the rectrices are but indistinctly tipped with yellowish. An adult male from Borba, Rio Madeira, is similar, except for wider tail tips. Another male from Manáos and a female from Cussary (south bank of the lower Amazon) are slightly smaller; and, besides, they show a faint yellowish tinge on the anal region. A single male from Maranhão (Tury-assú) is grayer above than any other specimen examined.

Material examined.—French Guiana: Cayenne 1.—British Guiana: Bartica Grove 1, Roraima 5, Quonga 1.—Brazil: Manáos 1; Cussary 1; Villa Braga, Tapajóz 1; Borba, Rio Madeira 1; Tury-assú, Maranhão 1.

<sup>2</sup>*Piprites chloris bolivianus* CHAPMAN: Nearly allied to *P. c. chlorion*, but with much smaller bill; grayish breast and sides tinged with yellowish; middle of abdomen brighter yellow; rectrices broadly tipped with pale yellowish as in *P. c. tschudii*. Wing 67-69; tail 50-53; bill 9.

A specimen from Bolivia has the nape extensively gray like *P. c. chlorion*; while the two Brazilian birds, in this respect, rather resemble *P. c. tschudii*.

Material examined.—Bolivia: Quebrada Onda, Yungas of Cochabamba (♂ ad., June 28, 1892. G. Garlepp. Berlepsch Collection) 1.—Brazil: Salto do Girão, Rio Madeira (♂ imm., Oct. 15, 1829. J. Natterer) 1; Engenho do Gama, Rio Guaporé, Matto Grosso (♂ imm., July 19, 1826. J. Natterer) 1.

*Piprites chloris bolivianus* CHAPMAN, Amer. Mus. Novit., 138, p. 6, 1924—Mission San Antonio, Río Chimoré, Bolivia.

*Piprites chlorion* (not of CABANIS) PELZELN, Orn. Bras., 2, p. 126, 1868—part, Engenho do Gama, Matto Grosso and Salto do Girão, upper Rio Madeira (spec. examined); PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 5, 1887—part, Engenho do Gama and Salto do Girão.

*Piprites chloris chlorion* HELLMAYR, Nov. Zool., 17, p. 302, 1910—part, Engenho do Gama and Salto do Girão.

Range: Northern Bolivia (San Antonio, Río Chimoré; Quebrada Onda, Yungas of Cochabamba) and adjacent sections of central Brazil (Salto do Girão, upper Rio Madeira; Engenho do Gama, Rio Guaporé, western Matto Grosso).

**\**Piprites chloris tschudii* (Cabanis). TSCHUDI'S MANAKIN.**

*Hemipipo tschudii* CABANIS, Journ. Ornith., 22, p. 99, 1874—"central Peru"—Ninabamba, dept. Junín (type in Berlin Museum examined); TACZANOWSKI, P.Z.S.Lond., 1874, p. 539—Peru.

*Pipra chloris* (not of TEMMINCK) TSCHUDI, Arch. Naturg., 10, (1), p. 271, 1844—Peru; idem, Faun. Peru., Aves, p. 144, 1846—montañas of "north-western" Peru.

*Piprites chloris* SCLATER, P.Z.S.Lond., 23, p. 152, 1855—Bogotá.

*Piprites chlorion* (not of CABANIS) SCLATER, P.Z.S.Lond., 26, p. 72, 1858—Río Napo; SCLATER and SALVIN, l.c., 1866, p. 190—Upper Ucayali; idem, l.c., 1873, p. 282—Upper Ucayali, Peru; PELZELN, Orn. Bras., 2, p. 126, 1868—part, Marabitanas and mouth of the Xié, Rio Negro, and Rio Içanna, Brazil (spec. examined); TACZANOWSKI, P.Z.S.Lond., 1882, p. 22—Huambo and Yurimaguas, Peru; PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 5, pl. 2, fig. 2 ("female"), 1887—part, descr. of female and young, and hab. Peru, Ecuador, Bogotá, Marabitanas and Rio Içanna.

*Piprites tschudii* TACZANOWSKI, Orn. Pér., 2, p. 334, 1884—Huambo, Yurimaguas, upper Ucayali, and Ninabamba, Peru; PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 7, pl. 3, fig. 1, 1887—Peru (descr. and fig. of type discolored by preservation in alcohol); SCLATER, Cat. B. Brit. Mus., 14, p. 284, 1888—Bogotá, Sarayacu, Río Napo; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 367—La Gloria and La Merced, dept. Junín, Peru.

*Piprites chloris tschudii* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 13, 1910—Peru, Ecuador, Colombia, and upper Rio Negro, Brazil; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 534, 1926—Zamora, Río Suno, and below San José, Ecuador.

Range: Upper Amazonia, from the eastern slopes of the Eastern Andes in Colombia south through eastern Ecuador to central Peru (dept. Junín), east to northwestern Brazil (upper Rio Negro).<sup>1</sup>

1: Colombia (Bogotá 1).

<sup>1</sup>Birds from Peru (La Gloria, La Merced) have the tips to the median upper wing coverts paler, so as to suggest a second light wing bar. On the upper Rio Negro this form passes gradually into *P. c. chlorion*. A couple from Marabitanas



**Piprites chloris antioquiae** *Chapman*.<sup>1</sup> CHAPMAN'S GREENISH MANAKIN.

*Piprites chloris antioquiae* CHAPMAN, Amer. Mus. Novit., 138, p. 6, 1924—La Frijolera, lower Cauca, Antioquia, Colombia.

*Piprites tschudi* (not *Hemipipo tschudii* Cabanis) CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 483, 1917—La Frijolera.

Range: Tropical Zone of the lower Cauca, state of Antioquia, northern Colombia.

**\*Piprites griseiceps** *Salvin*.<sup>2</sup> GRAY-HEADED MANAKIN.

*Piprites griseiceps* SALVIN, P.Z.S.Lond., "1864," p. 583, pub. April, 1865—Tucurriquí, Costa Rica; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 116, 1868—Tucurriquí; PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 9, pl. 3, fig. 2, 1887—Tucurriquí; SCLATER, Cat. B. Brit. Mus., 14, p. 285, 1888—Tucurriquí; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 107, pl. 41, fig. 3, 1890—Tucurriquí; SALVIN, Bull. Brit. Orn. Cl., 1, p. XXXII, 1893—San Carlos, Nicaragua; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, 768, 1907—Costa Rica (Tucurriquí, Jiménez, Reventazón) and Nicaragua (San Carlos); BANGS, Proc. Biol. Soc. Wash., 22, p. 32, 1909—La Vijagua, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 676, 1910—Reventazón, La Vijagua, El Hogar, and Miravelles, Costa Rica; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 14, 1910—Costa Rica and Nicaragua.

Range: Costa Rica (chiefly on the Caribbean slope) and Nicaragua (San Carlos).

1: Costa Rica (El Hogar 1).

and a female from the mouth of the Rio Xié closely match Ecuadorian examples, being just a little paler yellow below, with less greenish suffusion across the chest. The Marabitanas male has the whitish tips to the rectrices fully as wide, and the median wing coverts as distinctly marked with yellowish, as in birds from Peru; while the female, in coloration of tail, resembles *chlorion* of Guiana. A male from the Rio Içanna [= Rio Isana], in coloration of under parts, is exactly intermediate between *chlorion* and *tschudii*; and except for its larger bill it can hardly be distinguished from *P. c. bolivianus*. Finally, another male from Marabitanas is gray-breasted like *chlorion* and apparently is not separable from Guianan examples. The type of *H. tschudii*, owing to its preservation in alcohol, has lost most of the greenish and yellow tints of the plumage, thereby misleading the authors of the "Monograph of the Manakins" as to its true characters.

Material examined.—Colombia: "Bogotá" 5.—Ecuador: Sarayacu 2.—Peru: Ninabamba (the type) 1, La Gloria 2, La Merced 1.—Brazil: Marabitanas, Rio Negro 3, Rio Içanna [= Rio Isana] 1, mouth of the Rio Xié 1.

<sup>1</sup>*Piprites chloris antioquiae* CHAPMAN: "Similar to *P. c. tschudii*, but upper parts brighter green, nape with less gray; under parts brighter, clearer yellow, less suffused with olive." (CHAPMAN, l.c.).

We are not acquainted with this race, based on a single male from La Frijolera in the lower Cauca region.

<sup>2</sup>*Piprites griseiceps* SALVIN differs from its allies by reason of slate gray top and sides of the head, without any yellow on forehead and lores; white instead of yellow orbital ring; and by having the greater upper wing coverts narrowly margined with olive-green like the back, instead of broadly tipped with yellowish white, besides several minor differences. Wing (one adult male) 65; tail 46.

Genus **PIPRA** Linnaeus.

*Pipra* LINNAEUS, Mus. Adolph. Frid., 2, Prodr., p. 32, 1764—type by subs. desig. (Gray, List Gen. Birds, p. 33, 1840) *Parus aureola* LINNAEUS.

*Pythis* "VIEILL[OT]" (not *Pithys* VIEILLOT, 1816) BOIE, Isis, 1826, p. 971—type *Pipra leucocilla* LINNAEUS.

*Dixiphia* REICHENBACH, Av. Syst. Nat., pl. 63, 1850—type *Pipra leucocilla* LINNAEUS.

*Lepidothrix* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by subs. desig. (GRAY, 1855, p. 147) *Pipra cyanocapilla* HAHN.

*Dasyntelopa* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by monotypy *Pipra serena* LINNAEUS.

**\*Pipra aureola aureola** (Linnaeus). ORANGE-HEADED MANAKIN.

*Parus Aureola* LINNAEUS, Syst. Nat., 10th ed., 1, p. 191, 1758—based on EDWARDS, Nat. Hist. Birds, 2, p. 83, pl. 83, fig. 2, "from some part of South America, near the equinoctial line"—Surinam suggested as type locality (auct. HELLMAYR, Ibis, 1906, p. 6).

*Pipra rubra* P. L. S. MÜLLER, Natursyst., Suppl., p. 177, 1776—based on DAUBENTON, Pl. Enl. 302, fig. 2, Cayenne.

*Pipra aurantiaca* DAUDIN in BUFFON, Hist. Nat., (DIDOT éd.), Quadr., 14, p. 289, 1799—based on "Le Manakin orangé BUFF. VIII, p. 60," Cayenne.

*Pipra aurantia* SUCKOW, Anfangsgr. Naturg., 2, (2), p. 1188, 1801—based on "Manakin orangé" BUFFON; Daubenton, Pl. enl. 302, fig. 2; and EDWARDS, Nat. Hist. Birds, 2, p. 83, pl. 83, fig. 2.

*Pipra dubia* MADARÁSZ, Zeits. Ges. Orn., 3, p. 270, pl. 9, 1886—locality unknown (=discolored specimen).

*Pipra aureola* DESMAREST, Hist. Nat. Tang., Manak. et Todiers, livr. 6, pl. 54 (adult male), 55, 56 (immature males); livr. 8, pl. 57 (variety), 1806—Guiana; HAHN, Vogel aus Asien etc., Lief. 2, pl. 5, 1818—Guiana; WAGLER, Isis, 1830, p. 933—Cayenne; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 696, 1848—mouth of the Barima: BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 37, 1857—Cayenne; PELZELN, Orn. Bras., 2, p. 126, 1868—part, Rio Negro (spec. examined); SCLATER and SALVIN, P.Z. S.Lond., 1868, p. 168—Pilar, Sucre, Venezuela; SALVIN, Ibis, 1885, p. 299—Bartica Grove, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 293, 1888—Surinam, Cayenne, Bartica Grove, Pilar (Venezuela), "Trinidad"; ALLEN, Bull. Amer. Mus. N.H., 4, p. 55, 1892—El Pilar, Venezuela; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Saint Georges, Ouanary, and Mahury, French Guiana; HELLMAYR, Ibis, 1906, p. 6—part, excl. Santarém (monog.); SNETHLAGE, Journ. Orn., 55, p. 288, 1907—"Maraeá" [=Maracá], Mexiana, Marajó, "Rio Mojú," Monte Alegre; HAGMANN, Zool. Jahrb., (Syst.), 26, p. 32, 1907—Mexiana; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 14, p. 12, 1908—French Guiana; BERLEPSCH, Nov. Zool., 15, pp. 136, 318, 1908—Cayenne, Roche-Marie,

Approuague (French Guiana localities); SNETHLAGE, Journ. Orn., 61, p. 524, 1913—part, north side of lower Amazon; idem, Bol. Mus. Goeldi, 8, p. 363, 1914—part, Marajó (São Natal, Chaves), Mexiana, Maracá, Rio Jary (Santo Antonio da Cachoeira), Arumanduba, Monte Alegre, Rio Maecurú; CHUBB, Birds Brit. Guiana, 2, p. 242, 1921—Bartica, Bonasica, Anarica River, Abary River, Merumé Mts., Roraima.

*Pipra flavicollis* (not of SCLATER) SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 579—part, Mexiana.

*Pipra aureola aureola* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 6, pl. 2, fig. 7, 1910—part, Cayenne, Surinam, British Guiana, Venezuela, "Pará" and "Barra do Rio Negro"; idem, Nov. Zool., 17, p. 304, 1910—part (excl. Santarém); idem, Abhandl. Bayr. Ak. Wiss., Math-phys. Kl., 26, No. 2, p. 90, 1912—"Rio Mojú"; l.c., p. 111, 1912—Fazenda Nazareth, Mexiana; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 248, 1916—Las Barrancas, Orinoco delta; BEEBE, Trop. Wild Life, 1, p. 134, 1917—Bartica Grove; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—Paramaribo, Surinam.

Range: French, Dutch, and British Guiana; northeastern Venezuela (Orinoco delta; El Pilar, near Carúpano, Sucre); and extreme northeastern Brazil, north of the Amazon, as far west as the Rio Maecurú, supposedly also on the Rio Negro.<sup>1</sup>

9: French Guiana (Cayenne 5); Dutch Guiana (vicinity of Paramaribo 1); British Guiana (Hyde Park, Demerara River 1); Brazil (Rio Maecurú 2).

***Pipra aureola aurantiicollis* Todd.<sup>2</sup> ORANGE-THROATED MANAKIN.**

*Pipra aureola aurantiicollis* TODD, Proc. Biol. Soc. Wash., 38, p. 96, 1925—Santarém (type examined).

<sup>1</sup>Birds from the islands in the delta of the Amazon (Marajó, Mexiana) and from near Monte Alegre (on the north bank of that river) agree in every respect with a large series from Guiana. Three adult males from an unspecified locality on the "Rio Negro"—erroneously stated to be from Manáos in Nov. Zool., 17, p. 304, 1910, and in WYTSMAN, Gen. Av., Part 9, p. 6, 1910—merely differ by having a darker red breast and less orange about forehead and throat; they are very different from *P. a. flavicollis*, originally described from Barra do Rio Negro [= Manáos], of which I have seen a series from Obidos, about one hundred miles west of Monte Alegre. If really from the Rio Negro, they probably came from the upper stretches of that river where quite a number of Guianan species are known to occur.

No reliable record exists for Trinidad, sometimes included in the habitat of the Orange-headed Manakin, although there is in the Paris Museum a male said to have been sent from that island by Robin in 1816.

Material examined.—French Guiana: Cayenne 15, Roche-Marie 2, Approuague 2, Mana 5.—Dutch Guiana: vicinity of Paramaribo 10.—British Guiana: Demerara River 4.—Venezuela: Guanoco, Orinoco delta 1; El Pilar, Sucre 1.—Brazil: São Natal, Marajo 2; Palhetá, Marajó 2; Fazenda Nazareth, Mexiana 11; Monte Alegre 2; Rio Maecurú 2; "Rio Negro" 3.

<sup>2</sup>*Pipra aureola aurantiicollis* TODD: Similar in the male sex to *P. a. aureola*, but throat cadmium yellow with merely a few orange chrome tips (instead of orange, most of the feathers largely tipped with flame scarlet); cheeks and auric-



*Pipra aureola* (not of LINNAEUS) PELZELN, Orn. Bras., 2, p. 126, 1868—part, Santarém (spec. examined); HELLMAYR, Ibis, 1906, p. 6—part, Santarém; IHERING and IHERING, Cat. Faun. Braz., 1, p. 298, 1907—part, Santarém; SNETHLAGE, Journ. Orn., 55, p. 524, 1907—Cussary; idem, Bol. Mus. Goeldi, 8, p. 363, 1914—part, Cussary and Tamucury, south bank of lower Amazon.

*Pipra aureola aureola* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 6, 1910—part, Santarém; idem, Nov. Zool., 17, p. 304, 1910—part, Santarém.

*Pipra aureola flaviceps* (lapsu) RIKER and CHAPMAN, Auk, 8, p. 24, 1891—Santarém.

Range: Northern Brazil, on the south bank of the lower Amazon (Santarém; Cussary; Tamucury).

**\**Pipra aureola flavicollis* Sclater.<sup>1</sup> YELLOW-THROATED MANAKIN.**

*Pipra flavicollis* SCLATER, Contrib. Ornith., 1851, p. 143—Barra do Rio Negro [= Manáos], Brazil (type in British Museum examined); SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 579—part, north side of the Amazon; SCLATER, Cat. B. Brit. Mus., 14, p. 294, 1888—Barra do Rio Negro.

ulars less suffused with scarlet; scarlet pectoral area less "solid," with more of the yellowish basal portion of the feathers showing through. Wing (adult male) 60-64; tail 28-31; bill  $8\frac{1}{2}$ -10.

While somewhat inclined toward *P. a. flavicollis*, the present form may be separated from it by generally darker, more orange forehead and by the decidedly deeper (more orange) yellow of the throat not being abruptly defined against the red of the chest. Fifteen males from Santarém in the collection of the Carnegie Museum are fairly uniform, although one or two approach the allied races in certain respects. The majority resemble *aureola* in coloration of tail, the lateral rectrices having no white at all or merely a narrow streak along the shaft. Two specimens, however, show a distinct white subbasal band across the inner web of the outermost rectrix; and another in the Vienna Museum has the outermost pair banded on both webs, and the two succeeding ones marked with a white spot at the base of the inner web, thus closely resembling the pattern of Peruvian examples of *P. fasciicauda purusiana*.

This form is known to me only from Santarém, but I do not doubt that the examples recorded by Madame Snethlage from the south bank of the lower Amazon (Cussary, Tamucury) will prove to be referable to the same race.

Material examined.—Brazil: Santarém 20.

<sup>1</sup>*Pipra aureola flavicollis* SCLATER: Nearly allied to *P. a. aurantiicollis*, but adult male with throat and foreneck lighter yellow (varying from light cadmium to cadmium yellow), abruptly contrasted with scarlet of breast; frontal band lighter cadmium yellow and more strongly defined; lores and sides of head likewise clearer cadmium yellow, with but little scarlet suffusion on the upper portion of the auriculars. Wing 62-64; tail 27-30.

The range of this well-marked race is rather peculiar. It replaces *P. a. aureola* in western Lower Amazonia, extending on the north bank of the Amazon as far east as Obidos, but it is also found along both sides of the Rio Madeira. Males from the last-named river, as a rule, have the yellow forehead more extensive and the auriculars less suffused with scarlet, though the divergency is insignificant. In the light of the material secured by S. M. Klages at Obidos, it appears that the type locality Manáos, which had been questioned by both Sclater and myself, was, after all, correct.

Material examined.—Brazil: Manáos (the type) 2; Itacoatiará 2; Obidos 5; islands at Obidos 4; Rio Madeira, Borba 2, Marmellos 1, Humaythá 11.

*Pipra aureola* (not of LINNAEUS) PELZELN, Orn. Bras., 2, p. 126, 1868—part, Borba, Rio Madeira (spec. examined); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 363, 1914—part, Obidos and Rio Jamundá (Faro).

*Pipra aureola flavicollis* HELLMAYR, Ibis, 1906, p. 8—Barra and Borba (monog.); idem, Nov. Zool., 14, p. 358, 1907—Humaythá, Rio Madeira; idem, l.c., 17, pp. 303, 305, 1910—Marmellos, Rio Madeira (crit., range); idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—west bank of the Rio Madeira.

Range: Northern Brazil, on the north bank of the lower Amazon (from Obidos to Manáos) and on the Rio Madeira (Borba, right bank; Marmellos and Humaythá, left bank).

2: Brazil (Itacoatiará 2).

**\**Pipra fasciicauda fasciicauda* Hellmayr. BANDED-TAILED MANAKIN.**

*Pipra fasciata* (not of THUNBERG, 1822)<sup>1</sup> LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 38, 1837—Yuracares, Bolivia (type in Paris Museum examined); idem, Voyage Amér. Mérid., Ois., p. 295, pl. 30, fig. 1, 1839—Santa Cruz and Guarayos, Bolivia; SCLATER and SALVIN, P.Z.S. Lond., 1879, p. 616—Bolivia (ex D'ORBIGNY); SCLATER, Cat. B. Brit. Mus., 14, p. 294, 1888—part, Bolivia; ALLEN, Bull. Amer. Mus. N.H., 2, p. 87, 1889—Falls of the Río Madeira, Bolivia.

*Pipra fasciicauda* HELLMAYR, Ibis, (8), 6, p. 9, 1906—new name for *Pipra fasciata* LAFRESNAYE and D'ORBIGNY, preoccupied (syn. part, Bolivian localities).

*Pipra fasciicauda fasciicauda* HELLMAYR, Nov. Zool., 15, p. 54, 1908—range in part, eastern Bolivia; idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, Bolivia.

*Pipra aureola fasciicauda* HELLMAYR, Nov. Zool., 17, p. 305, 1910—part, eastern Bolivia; idem, Verh. Orn. Ges. Bay., 12, p. 123, 1915—eastern Bolivia and extreme southeastern Peru (Yahuarmayo, Carabaya); idem, Arch. Naturg., 85, A, Heft 10, p. 61, 1920—Yahuarmayo, Carabaya, Peru; idem, Nov. Zool., 32, p. 12, 1925—Bolivia (note on type).

Range: Eastern Bolivia (Santa Cruz; Buenavista; Guarayos; Río San Mateo; falls of the Río Madeira) and extreme southeastern Peru (Yahuarmayo, north slope of Sierra de Carabaya).<sup>2</sup>

2: Bolivia (Buenavista, dept. Santa Cruz 2).

**\**Pipra fasciicauda scarlatina* Hellmayr.<sup>3</sup> SCARLET MANAKIN.**

*Pipra aureola scarlatina* HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 122, 1915—Fazenda Cayoá, Salto Grande do Rio Paranapanema, São Paulo, Brazil.

<sup>1</sup>See Field Mus. Nat. Hist. Pub., Zool. Ser., 13, Part 5, p. 465, 1927.

<sup>2</sup>Material examined.—Bolivia: Guarayos (including the type) 2; Río San Mateo 3; Santa Cruz 1; Buenavista 2.—Peru: Yahuarmayo, Carabaya 3.

<sup>3</sup>*Pipra fasciicauda scarlatina* HELLMAYR: Similar to *P. f. fasciicauda* in tail markings (viz., all of the rectrices with a continuous yellowish-white band across

*Pipra fasciata* (not of LAFRESNAYE and D'ORBIGNY) SCLATER and SALVIN, P.Z.S. Lond., 1867, p. 579—Rio Tocantins; PELZELN, Orn. Bras., 2, p. 127, 1868—Rio Paraná (São Paulo), Goyaz, Villa Maria, Engenho do Gama, Rio Guaporé, [Villa Bella de] Matto Grosso, and São Vicente, Matto Grosso (spec. examined); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 321—Lagôa Dourada and near Lagôa Santa, Minas Geraes; SCLATER, Cat. B. Brit. Mus., 14, p. 294, 1888—part, spec. b-d, Matto Grosso, Engenho do Gama, and Rio Paraná; ALLEN, Bull. Amer. Mus. N. H., 5, p. 109, 1893—Chapada, Matto Grosso; IHERING and IHERING, Cat. Faun. Braz., 1, p. 298, 1907—Piracicaba, Salto Grande do Rio Paranapanema, Avanhadava, Itapura, and Bebedouro, São Paulo.

*Pipra fasciicauda* HELLMAYR, Ibis, 1906, p. 9—part, descr. and hab. part, Brazilian localities; BERTONI, Seg. Contrib. Ornith. Parag. in Rev. Inst. Parag., 1907, p. 5—Paraguay; HELLMAYR, Nov. Zool., 14, p. 12 1907—Itaituba, Rio Tapajóz; SNETHLAGE, Journ. Orn., 56, p. 528, 1908—Arumatheua, Rio Tocantins; CHUBB, Ibis, 1910, p. 600—Sapucay, Paraguay; SNETHLAGE, Journ. Orn., 61, p. 525, 1913—Tapajóz, Jamauchim, Curuá and Tocantins rivers; idem, Bol. Mus. Goeldi, 8, p. 364—Ilha Pirunum and Arumatheua, Rio Tocantins; (?) BEEBE, Zoologica (N.Y.), 2, p. 90, 1916—Utinga, near Pará; BERTONI, El Hornero, 1, p. 257, 1919—Puerto Bertoni, Paraguay.

*Pipra fasciicauda fasciicauda* HELLMAYR, Nov. Zool., 15, p. 54, 1908—Fazenda Esperança, Goyaz; idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, central Brazil and Lower Amazonia.

*Pipra aureola fasciicauda* HELLMAYR, Nov. Zool., 17, p. 303, 1910—Maroins, Rio Machados; idem, l.c., p. 305, 1910—part, Brazilian localities; idem, Verh. Orn. Ges. Bay., 12, p. 123, 1915—synon., range.

Range: Paraguay (Sapucay; Puerto Bertoni) and the interior of Brazil, south to northern São Paulo and western Minas Geraes, west to Matto Grosso and the Rio Machados, north to Lower Amazonia (Rio Tapajóz, Rio Curuá, and Rio Tocantins).

### 3: Brazil (Chapada, Matto Grosso 3).

both webs); but cheeks, auriculars, and throat largely tipped with scarlet, partly concealing the cadmium yellow ground-color; foreneck and breast much darker, scarlet instead of cadmium orange or orange chrome; the scarlet color, in form of lateral edges, frequently extending down to the lower tail coverts. Female not distinguishable from *P. f. fasciicauda*.

There is obviously no difference between specimens from various localities. Birds from the Tapajóz, including a male from Miritituba, agree with others from Matto Grosso and show not the least tendency in the direction of *P. a. aurantiicollis*, found at Santarém; and as the ranges of *P. a. flavicollis* and *P. f. calamae* closely approach each other on the Rio Madeira, without evidence of intergradation, it is perhaps safer for the present to treat *P. fasciicauda* as specifically distinct.

Material examined.—São Paulo: Fazenda Cayoá, Salto Grande do Rio Paranapanema 7, Rio Paraná 3.—Minas Geraes: Rio Jordão, near Araguary 4.—Matto Grosso: Engenho do Gama 3, Villa Maria 3, Villa Bella de Matto Grosso 3, Chapada 7.—Goyaz: Goyaz City 2, Fazenda Esperança 2.—Amazonas: Maroins, Rio Machados 2; Rio Tapajóz, Itaituba 2, Villa Braga 3, Miritituba 1.



***Pipra fasciicauda purusiana* Snethlage.<sup>1</sup> PURÚS MANAKIN.**

*Pipra fasciicauda purusiana* SNETHLAGE, Ornith. Monatsber., 15, p. 160, 1907—Ponto Alegre, Rio Purús, Brazil; idem, Journ. Orn., 56, p. 12, 1908—Bom Lugar, Ponto Alegre, Monte Verde, Rio Purús; idem, Bol. Mus. Goeldi, 8, p. 364, 1914—same localities; HELLMAYR, Nov. Zool., 15, p. 54, 1908—crit., range; idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—western Brazil to eastern Peru.

*Pipra fasciata* (not of LAFRESNAYE and D'ORBIGNY) SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 282—Río Ucayali, Peru (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 294, 1888—part, spec. e, f, upper Ucayali, Peru.

*Pipra fasciicauda* HELLMAYR, Ibis, 1906, p. 9—part, Ucayali and Chuchurras (Huánuco), Peru.

*Pipra aureola purusiana* HELLMAYR, Nov. Zool., 17, p. 306, 1910—Rio Purús and eastern Peru (crit.).

Range: Western Brazil, banks of the upper Rio Purús, west to eastern Peru (Río Ucayali; Chuchurras, Río Palcazú, dept. Huánuco).

***Pipra fasciicauda calamae* Hellmayr.<sup>2</sup> CALAMA MANAKIN.**

*Pipra aureola calamae* HELLMAYR, Nov. Zool., 17, pp. 303, 306, 1910—Calama, Rio Madeira, Brazil.

Range: Central Brazil, on the right bank of the upper Rio Madeira (Calama, Allianca, Santa Izabel).

***Pipra anomala* Todd.<sup>3</sup> ANOMALOUS MANAKIN.**

*Pipra anomala* TODD, Proc. Biol. Soc. Wash., 38, p. 97, 1925—Santarém, Rio Tapajóz, Brazil (type in Carnegie Museum examined).

<sup>1</sup>*Pipra fasciicauda purusiana* SNETHLAGE: Adult male similar to *P. f. fasciicauda*, but central rectrices uniform black, and black tips to under tail coverts much more extensive; throat and foreneck cadmium orange as in *P. f. fasciicauda*, from which the female is indistinguishable. Wing (adult male) 63-65; tail 26-30.

In specimens from the Rio Purús two or four of the median rectrices are entirely black, and the two or three external pairs are banded with yellowish on both webs, while the intervening ones have a white patch near the base of the inner vane. In Peruvian skins the six median rectrices are devoid of white.

Material examined.—Brazil, Rio Purús: Monte Verde 3, Ponto Alegre (the type) 1, Bom Lugar 1.—Peru: Río Ucayali 1; unspecified 1; Chuchurras, dept. Huánuco 4.

<sup>2</sup>*Pipra fasciicauda calamae* HELLMAYR: Similar in the male sex to *P. f. purusiana*, and agreeing with topotypical Brazilian examples in tail markings; but the entire fore part of the crown is cadmium yellow; breast deeper crimson; flanks strongly washed with olive; abdomen and basal portion of under tail coverts suffused with crimson. Wing (male) 64-65; tail 27-28.

Material examined.—Brazil: Calama 6, Allianca 2, Santa Izabel, Rio Preto 2.

<sup>3</sup>*Pipra anomala* TODD: Pileum and nape deep orange chrome; back dark olive green, most of the feathers apically edged with sooty black, more broadly so on the mantle; wing coverts, wings, and tail dusky black, exteriorly edged with olive green; lores pale yellow, tipped with blackish; circumocular region and auriculars black, forming a large dark patch on the sides of the head; throat

Range: Northern Brazil, in state of Pará (Santarém, Rio Tapajóz).

**\**Pipra isidorei isidorei* Sclater. ISIDOR'S MANAKIN.**

*Pipra isidorei* SCLATER, Rev. Mag. Zool., (2), 4, p. 9, 1852—"Nouvelle Grenade" = Bogotá (type in Paris Museum examined); idem, Contrib. Ornith., 1852, p. 132, pl. 100, fig. 1—Bogotá; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—San José, Ecuador.

*Pipra isidori* SCLATER, P.Z.S. Lond., 22, p. 114, 1854—Quijos, Ecuador; idem, l.c., 23, p. 152, 1855—Bogotá; idem, Cat. B. Brit. Mus., 14, p. 298, 1888—Bogotá, and Sarayacu, Ecuador (excl. Peruvian references); GOODFELLOW, Ibis, 1901, p. 708—Baeza, Ecuador.

*Pipra isidorii isidorii* HELLMAYR, Ibis, 1906, p. 28—Bogotá and Ecuador (monog.).

*Pipra isidorei isidorei* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Bogotá and eastern Ecuador.

*Pipra isadorei isadorei* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 481, 1917—Buenavista, eastern Colombia; idem, l.c., 55, p. 531, 1926—Zamora and below San José, Ecuador.

Range: Tropical Zone of eastern Ecuador and of the eastern slope of the Eastern Andes of Colombia.<sup>1</sup>

2: Colombia (Bogotá 1); Ecuador (Napo region 1).

**\**Pipra isidorei leucopygia* Hellmayr.<sup>2</sup> WHITE-RUMPED MANAKIN.**

*Pipra isidorei leucopygia* HELLMAYR, Verh. Zool. Bot. Ges. Wien, 53, p. 200, 1903—Huambo, Peru; idem, Ibis, 1906, p. 29—northern Peru (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Huayabamba Valley, Peru; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—Nuevo Loreto, east of Tayabamba, Peru.

light orange yellow, deeper on chin and malar region, continuous with a narrow streak of dull orange along the sides of the neck connecting with the orange of the nape; breast washed with cadmium orange, forming a brightly colored zone, fading into the maize yellow of the abdomen; flanks washed with olive grayish; under tail coverts sooty black, basally white and edged with yellowish; under wing coverts very pale buffy grayish; bill black. Wing (male) 74; tail 40; bill 12.

The type (and only known specimen), by the coloration of the under parts, somewhat resembles *P. fasciicauda*; but the much larger bill and greater dimensions, together with the black sides of the head, distinguish it at a glance from that group of Manakins. The coloring of the upper parts is very peculiar, too, and while the type may be not quite mature, I have little doubt of its specific distinctness.

<sup>1</sup>Specimens from Ecuador agree with Bogotá skins.

Material examined.—Colombia: Bogotá 25.—Ecuador: Baeza 2, Napo region 2, Sarayacu 3.

<sup>2</sup>*Pipra isidorei leucopygia* HELLMAYR: Adult male similar to *P. i. isidorei*, but rump for the greater part milky white like the cap, instead of light Amparo blue; female with rump slightly more yellowish green. Wing (male) 48-50; tail 20-21.

Material examined.—Peru: Huambo (including the type) 3; Huayabamba 1; Moyobamba 3; Nuevo Loreto 2.



*Pipra isidori* (not of SCLATER) TACZANOWSKI, P.Z.S.Lond., 1882, p. 23—Huambo; idem, Orn. Pér., 2, p. 342, 1884—Huambo.

Range: Tropical zone of northern Peru (Huambo; Huayabamba; Moyobamba; Nuevo Loreto, east of Tayabamba, dept. Libertad).

4: Peru (Moyobamba 3; Nuevo Loreto 1).

**\**Pipra coronata velutina* Berlepach. VELVETY MANAKIN.**

*Pipra velutina* BERLEPSCH, Ibis, (5), 1, p. 492, 1883—Veragua; SCLATER, Cat. B. Brit. Mus., 14, p. 299, 1888—part, spec. a-c, Bugaba, Chiriquí, and Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 110, 1890—part, Bugaba, Chiriquí, Santiago de Veraguas; CHERRIE, Proc. U.S.Nat. Mus., 14, p. 535, 1891—Pozo Azul, Costa Rica (crit., descr. of female); idem, Anal. Inst. Fis.-Geog. Nac. Costa Rica, 6, p. 72, 1893—Río Naranjo, Costa Rica; BANGS, Auk, 18, p. 364, 1901—Divala, Panama; HELLMAYR, Ibis, 1906, p. 30—part, Costa Rica, Chiriquí, and Veragua; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 750, 1907—part, southwestern Costa Rica and western Panama (Divala, Santa Fé de Veragua, Bugaba, Volcán de Chiriquí); BANGS, Auk, 24, p. 303, 1907—Boruca, Paso Real, and El Pozo de Térraba, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 681, 1910—Buenos Aires, El General, Pozo Azul de Pirris, El Pozo de Térraba, and Boruca, southwestern Costa Rica (habits).

*Pipra cyaneocapilla* (not of HAHN) SALVIN, P. Z.S.Lond., 1867, p. 149—Santiago de Veragua; idem, l.c., 1870, p. 200—Bugaba and Volcán de Chiriquí, Panama.

*Pipra coronata velutina* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, Costa Rica, Chiriquí, Veragua.

Range: Extreme southwestern Costa Rica and western Panama (Chiriquí and Veraguas).<sup>1</sup>

8: Costa Rica (Térraba 1, Boruca 4, Buenos Aires 1, Lagarto 1); Panama (Chiriquí 1).

**\**Pipra coronata minuscula* Todd.<sup>2</sup> SHORT-WINGED VELVETY MANAKIN.**

<sup>1</sup>Birds from Bugaba, Chiriquí agree in size and coloration with a Costa Rican series. I have not seen any material from Veraguas, the type locality, but according to Berlepsch's measurements (wing 61; tail 27), specimens from this province appear to be referable to the northern larger race.

Material examined.—Costa Rica 21.—Panama (Chiriquí, Bugaba, Divala) 14.

<sup>2</sup>*Pipra coronata minuscula* TODD: Very similar to *P. c. velutina*, but wings and tail shorter; bill decidedly smaller; plumage in adult males deeper black, and crown a shade darker blue. Wing (male) 55-58, (female) 54½-57; tail 24½-27; bill 7-8.

Birds from the Panama Railroad average slightly larger (wing 58-59½; tail 26½-28), but have the small bill and deep coloration of South American specimens.

Material examined.—Panama: Lion Hill (adult males) 3.—Colombia: Alto Bonito 1, Remedios 1, Nóvita 6, Sipi 6, Juntas de Tamaná 1, Noanamá 3, Río Cajón 1, San Joaquín [= Buenaventura] 1.—Ecuador: Cachaví 3, San Javier 7.

*Pipra velutina minuscula* TODD, Proc. Biol. Soc. Wash., 32, p. 115, 1919—Quibdó, Río Atrato, Colombia; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 215, 1922—Mount Sapo and Jesusito, Darién.

*Pipra coronata* (not of SPIX) LAFRESNAYE, Rev. Zool., 10, p. 70, 1847—"Nouvelle Grenade," coll. DELATTRE.

*Chiroxiphia cyaneocapilla* (not of HAHN) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 296, 1862—Lion Hill, Panama Railroad.

*Pipra cyaneocapilla* SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 362—Panama (crit.); idem, l.c., 1879, p. 517—Medellín, Remedios, Río Neche, Colombia.

*Pipra velutina* (not of BERLEPSCH) SCLATER, Cat. B. Brit. Mus., 14, p. 299, 1888—part, spec. d-i, Panama, Lion Hill, Remedios; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 110, 1890—part, Lion Hill, Panama, and Colombia; HARTERT, Nov. Zool., 5, p. 488, 1898—Cachaví, Ecuador; HELLMAYR, Ibis, 1906, p. 30—part, Panama, western Colombia, and northwestern Ecuador (crit.); RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 750, 1907—part, Panama (Lion Hill), western Colombia, and northwestern Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 381, 1917—Alto Bonito, Bagado, Andagueda, Juntas de Tamaná, Nóvita, Noanamá, San José, Buenaventura, Barbacoas, and Puerto Valdivia, Colombia; STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 268, 1918—Gatún, Panama.

*Pipra coronata velutina* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, Panama, western Colombia and northwestern Ecuador; idem, P.Z.S.Lond., 1911, p. 1140—Nóvita, Sipí, Noanamá, Río Cajón, and San Joaquín [=Buenaventura], Pacific Colombia.

Range: Eastern Panama, from the Panama Railroad eastwards; western Colombia (Pacific coast, extending east to the lower Cauca and Río Nechí, Antioquia), and northwestern Ecuador (prov. Esmeraldas).

2: Colombia (Alto Bonito, Río Sucio 1; Noanamá, Río San Juan 1).

### *Pipra coronata carbonata* Todd.<sup>1</sup> COAL-BLACK MANAKIN.

*Pipra carbonata* TODD, Proc. Biol. Soc. Wash., 38, p. 98, 1925—Tonantins, north bank of Río Solimões, Brazil (type in Carnegie Museum examined).

<sup>1</sup>*Pipra coronata carbonata* TODD: Most nearly allied to *P. c. coronata*, from the south bank of the Río Solimões, but adult males much deeper (velvety) black; under parts entirely uniform, the abdomen not paler than the breast; under tail coverts as a rule more grayish olive, less yellowish; cap on average darker, about slavia blue. Wing 58-61; tail 29-32; bill 8-9.

The excellent material secured by S. M. Klages for the Carnegie Museum proves beyond doubt that the black blue-capped Manakins from north of the Solimões, heretofore united with *P. c. coronata*, are easily distinguishable by their blacker coloration. In this respect, *P. c. carbonata* approaches *P. c. minuscula*, but differs on account of the purplish blue rump, much narrower black frontal band, and paler under tail coverts. The under parts are almost uniform velvety black, while in typical *coronata* the abdomen is decidedly duller, more sooty than

*Pipra cyaneocapilla* (not of HAHN?)<sup>1</sup> SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 190—"Upper Ucayali," errore<sup>2</sup> (spec. in British Museum examined); idem, l.c., 1867, p. 580—upper Rio Negro; idem, l.c., 1867, p. 978—Pebas, Río Marañón, Peru (spec. in British Museum examined); idem, l.c., 1873, p. 283—part, Pebas and "Upper Ucayali"; PELZELN, Orn. Bras., 2, p. 128, 1868—São Pedro, Cocuy, Marabitanas, and Rio Içanna, upper Rio Negro (spec. examined); TACZANOWSKI, Orn. Pér., 2, p. 343, 1884—part, Pebas and Loretoyacu, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 299, 1888—part, spec. a,b,g,h,j-n, Sarayacu, "Upper Ucayali," Pebas, Peruvian Amazon, Río Napo, Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 72, 1889—Río Napo.

*Pipra cyanocapilla* SALVADORI and FESTA, Bull. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Río Santiago, Ecuador.

*Pipra coronata* (not of SPIX) SCLATER, P.Z.S.Lond., 22, p. 114, 1854—Quijos, Río Napo; HELLMAYR, Ibis, 1906, p. 32—part, descr. and hab. Rio Negro, northeastern Peru, and eastern Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—Florescia and La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 532, 1926—Río Suno and below San José, Ecuador; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Río Suno and San José, Ecuador.

*Pipra coronata coronata* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, Ecuador, Peru, and Rio Negro.

Range: Upper Amazonia, from the north bank of the Rios Solimões (Tonantins, Manacapurú) and Marañón (Nauta, Pebas, Loretoyacu) north through eastern Ecuador to southeastern Colombia (Caquetá region), east to the upper Rio Negro in northwestern Brazil.

the breast. From *P. c. hoffmannsi* the north Amazon form may be told, in addition to its blacker coloring, by the absence of the olivaceous tinge on the lower belly, purplish instead of verditer blue rump, and by lacking the greenish edges to the wings.

Adult males from the north bank of the Marañón (Pebas, Nauta), eastern Ecuador, and the Caquetá region in Colombia agree with the Tonantins series. Three from the upper Rio Negro, although somewhat faded through age, appear to belong to the same race. Two (out of three) males from Manacapurú, farther east on the Solimões, by reason of a faint olivaceous tinge on the abdomen and a dusky blue wash across the chest, slightly diverge in the direction of *P. c. hoffmannsi*.

Material examined.—Brazil, Rio Solimões: Tonantins 8, Manacapurú 3; Marabitanas, Rio Negro 3; Rio Içanna [=Rio Isana] 4.—Peru: Nauta 3, Rio Tigre 1, Yahuas Territory, near Pebas 1, Pebas 1.—Ecuador: San José 4, Río Napo 8.—Colombia, Caquetá: La Morelia 3, Florescia 4.

<sup>1</sup>*Pipra cyanocapilla* HAHN (Vögel aus Asien, etc., Lief. 15, pl. 3, fig. 2, 1826—Brazil) may have been based on a specimen of the present form. Considering the similarity of the three races found on the banks of the Solimões and in the absence of a more definite locality than "Brazil", it seems best to drop the name altogether as ambiguous. The whereabouts of the type purchased from a dealer and formerly in the describer's private collection is unknown.

<sup>2</sup>The specimen which has no original label is no doubt incorrectly marked "Upper Ucayali." No black form of this group has been found on the Ucayali, where one of the green-plumaged races is more likely to occur.



**Pipra coronata coronata** Spix.<sup>1</sup> BLUE-CAPPED MANAKIN.

*Pipra coronata* SPIX, Av. Bras., 2, p. 5, pl. 7, fig. 1, 1825—São Paulo de Olivença, Rio Solimões, Brazil (types in Munich Museum examined); (?) SCLATER, P.Z.S.Lond., 25, p. 265, 1857—Rio Javarri; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 640, 1906—note on type; idem, Ibis, 1906, p. 32—part, São Paulo de Olivença and (?) Rio Javarri; IHERING and IHERING, Cat. Faun. Braz., 1, p. 299, 1907—part, Rio Juruá (spec. examined).

(?) *Pipra cyaneocapilla* (not of HAHN) SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 283—part, Rio Javarri; (?) TACZANOWSKI, Orn. Pér., 2, p. 343, 1884—part, Rio Javarri; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—part, Rio Juruá (spec. in Museu Paulista examined).

*Pipra coronata coronata* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, São Paulo de Olivença and Rio Juruá.

*Pipra herbacea* SPIX, Av. Bras., 2, p. 6, pl. 8a, fig. 1, 1825—"in sylvis flum. Amazonum" (type in Munich Museum examined; =female); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 640, 1906 (crit.).

Range: Extreme northwestern Brazil, from the south bank of the Rio Solimões (São Paulo de Olivença) south to São Felipe, on the upper Rio Juruá, and (?) west to the Javari.

**Pipra coronata hoffmannsi** Hellmayr.<sup>2</sup> HOFFMANN'S MANAKIN.

*Pipra hoffmannsi* HELLMAYR, Nov. Zool., 14, p. 49, 1907—Teffé, Rio Solimões, Brazil; idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Teffé.

<sup>1</sup>The adult male of *P. c. coronata* has the upper parts markedly duller, more of a brownish black than either *P. c. carbonata* or *P. c. hoffmannsi*; the color of the abdomen is intermediate between the two, being neither deep velvety black like the breast as in the former, nor dingy olive greenish as in the latter, but dull sooty, distinctly paler than the anterior under parts. Immature males closely approach *P. c. hoffmannsi*.

A single male obtained by E. Garbe at São Felipe, on the upper stretches of the Rio Juruá, on December 16, 1901 (Museu Paulista, No. 2260), is perfectly identical with examples from São Paulo de Olivença in the Carnegie Museum, which were directly compared with the types in the Munich Museum. The type of *P. herbacea* is evidently a female of the same form, and we formally suggest São Paulo de Olivença as its type locality, in order to finally dispose of that name.

The westward extension of its range cannot be traced with certainty, owing to lack of material from the country between the Juruá and Ucayali, and it remains to be ascertained where the green and black forms meet in eastern Peru.

Material examined.—Brazil: São Paulo de Olivença (including the types) 11; São Felipe, Rio Juruá 1.

<sup>2</sup>*Pipra coronata hoffmannsi* HELLMAYR: Adult male nearest to *P. c. coronata*, but cap shorter and darker blue; back, sides of the head, and throat deeper (velvety) black; rump washed with verditer blue instead of with purplish; greater upper wing coverts, quills, and rectrices distinctly edged with green; middle of breast and abdomen dingy olive yellowish; sides dark green; female more conspicuously yellowish along the abdominal line. Wing 58-61, (female) 55-59; tail 27-30; bill 8-9.

This form apparently replaces *P. c. coronata* on the south bank of the Solimões east of the Rio Teffé. The dark shade of the blue cap, the distinct green wing-edgings, and the extensive yellowish abdominal line in the original series

*Pipra cyaneocapilla* (not of HAHN) SCLATER, Cat. B. Brit. Mus., 14, p. 299, 1888—part, spec. e, Ega = Teffé.

Range: Northwestern Brazil, on the south bank of the Rio Solimões, from the Rio Teffé east to Caviana, near the mouth of the Rio Purús.

***Pipra coronata chloromelaena* Todd.<sup>1</sup> GREEN-BLACK MANAKIN.**

*Pipra chloromelaena* TODD, Proc. Biol. Soc. Wash., 38, p. 97, 1925—Nova Olinda, left bank of lower Purús, Brazil (type in Carnegie Museum examined).

Range: Western Brazil, on the left bank of the lower Rio Purús (Nova Olinda).

***Pipra coronata arimensis* Todd.<sup>2</sup> ARIMĀ MANAKIN.**

*Pipra chloromelaena arimensis* TODD, Proc. Biol. Soc. Wash., 38, p. 98, 1925—Arimã, right bank of lower Purús, Brazil (type in Carnegie Museum examined).

from Teffé reveal close affinity to *P. c. chloromelaena*, of the lower Purús. Four males from Caviana (opposite Manacapurú), on the other hand, differ by reason of duller black dorsal surface, with more bluish rump and less conspicuous green edges on the wings, somewhat lighter blue cap, and more restricted as well as more olivaceous (less yellowish) abdominal line.

Material examined.—Brazil, Rio Solimões: Teffé 9, Caviana 4.

<sup>1</sup>*Pipra coronata chloromelaena* TODD: Adult male closely similar to *P. c. hoffmannsi*, but upper back varying from dusky green to greenish slaty black (instead of plain black), passing into Danube green on rump and tail coverts; green edges on wing coverts, quills, and rectrices wider and brighter; throat somewhat duller, more greenish black, shading into dark green on chest; extensive area along middle of breast and abdomen dingy primrose yellow; sides brighter green; female not distinguishable. Wing (male) 59-61; tail 29-31; bill 8-9.

This most interesting form connects the black and green races of the blue-capped group, thus confirming my suspicion that they are all representatives of a single specific unit. The darkest specimens closely approach *hoffmannsi*, being, however, more tinged with greenish on mantle, sides of the head and throat, while the lower back and tail coverts are decidedly green, instead of being blackish, tinged with verditer or dusky blue. Wings and tail are more broadly margined with brighter green. The cap is about the same tone, salvia blue, with a faint violaceous cast, the bases of the feathers dusky as in *P. c. hoffmannsi*.

Material examined.—Brazil: Nova Olinda, lower Purús 9.

<sup>2</sup>*Pipra coronata arimensis* TODD: Adult male closely similar to *P. c. chloromelaena*, but cap much paler, light cerulean blue instead of salvia blue, with the bases of the feathers decidedly greenish; back without any black, the anterior portion being Danube green, becoming brighter posteriorly; sides of head and throat dusky green (less blackish); chest brighter, about empire green; middle of belly and under tail coverts brighter, barium yellow rather than primrose yellow. Wing (male) 56-60; tail 27-30; bill 8-9.

Reexamination shows specimens from Humaythá to be identical with the series from Arimã. The darker blue lateral and posterior edge of the cap is but slightly suggested in males of this form. Females are hardly different from *P. c. chloromelaena*, though the yellowish abdominal area averages a little brighter.

Material examined.—Brazil: Arimã, Rio Purús 15; Humaythá, Rio Madeira 7.

*Pipra caelesti-pileata* (not of GOELDI) HELLMAYR, Nov. Zool., 14, p. 359, 1907—Humaythá, Rio Madeira; idem, l.c., 17, p. 307, 1910—Humaythá; idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, Rio Madeira (Humaythá).

Range: Western Brazil, from the right bank of the lower Rio Purús (Arimã) to the left bank of the Rio Madeira (Humaythá).

***Pipra coronata caelesti-pileata* Goeldi.<sup>1</sup> AZURE-CAPPED MANAKIN.**

*Pipra caelesti-pileata* GOELDI, Compt. Rend. Six. Congr. Internat. Zool. Berne, p. 549, May 25, 1905 or later<sup>2</sup>—upper Rio Purús = Uby Cachoeira (type examined); SNETHLAGE, Journ. Orn., 56, p. 12, 1908—Cachoeira, Rio Purús; idem, Bol. Mus. Goeldi, 8, p. 366, 1914—Cachoeira; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—part, Rio Purús.

*Pipra cyaneocapilla* (not of HAHN) IHERING, Rev. Mus. Paul., 6, p. 435, 1905—part, "Rio Juruá" = Rio Chiruaño (Churuan), Brazil (spec. examined).

*Pipra exquisita* HELLMAYR, Ibis, p. 35—part, Rio Purús and "Rio Juruá" [= Rio Chiruaño].

*Pipra coronata* (not of SPIX) IHERING and IHERING, Cat. Faun. Braz., 1, p. 299, 1907—"Rio Juruá," part.

*Pipra exquisita caelesti-pileata* HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 63, 1920—Yahuarmayo, Sierra de Carabaya, Peru (crit.), and "Rio Juruá" [= Rio Chiruaño].

Range: Western Brazil, from the Rio Chiruaño (Churuan), a southerly tributary of the Juruá, and the upper stretches of the Rio

<sup>1</sup>*Pipra coronata caelesti-pileata* GOELDI: Most nearly related to *P. c. arimensis*, but cap of adult male less shining and appreciably darker, about light methyl-blue, with more of the greenish bases showing through; upper parts including the edges of wing and tail feathers much brighter and clearer, grass or spinach green; sides of head and throat more greenish (dark cress green); breast brighter, spinach green rather than Danube green; middle of belly and crissum as a rule clearer yellow. Wing (male) 58-62; tail 29-31; bill 8-9.

This form is unquestionably distinct from both *P. c. arimensis* and *P. c. exquisita*, as shown by a very satisfactory series in the Carnegie Museum from Hyutanahán. The cap of the adult males lacks the purplish posterior margin, and is intermediate in tone between the salvia blue of *chloromelaena* and the light cerulean blue of *arimensis*, the bluish tips being, at the same time, shorter and less flattened. The type of *P. caelesti-pileata* has the crown lighter blue than any of the Hyutanahán birds, more like *arimensis*, but this is likely to be individual. Two males from the upper stretches of the Rio Chiruaño (Churuan), a southerly tributary of the Juruá, halfway between that river and the Purús, agree well with the average from Hyutanahán. According to information received from their collector, the late Ernesto Garbe, they came from a section of the Juruá region, far away from São Felipe, where a single male of the black-plumaged *P. c. coronata* was obtained, as recorded under that form. Ihering's and Hellmayr's intimation, that the two races are found together, thus proves to be fallacious.

Birds from southeastern Peru (Yahuarmayo), while pointing to *exquisita* because of the slightly paler crown, are not otherwise different from Purús specimens.

Material examined.—Brazil, Rio Purús: Uby Cachoeira (the type) 1, Hyutanahán 14; Rio Chiruaño (Churuan) 3.—Peru: Yahuarmayo 6.

<sup>2</sup>Although there is a note on the title-page "sorti de presse le 25 mai 1905," the volume evidently was not issued until October or November of that year.



Purús (Hyutanahán, Uby Cachoeira) south to extreme southeastern Peru (Yahuarmayo, north slope of Sierra de Carabaya, dept. Puno).

**\**Pipra coronata exquisita* Hellmayr.<sup>1</sup> EXQUISITE MANAKIN.**

*Pipra exquisita* HELLMAYR, Bull. Brit. Orn. Cl., 15, p. 56, March, 1905—Chuchurras, near Pozuzo, dept. Huánuco, Peru; idem, Ibis, 1906, p. 35, pl. 1—part, Chuchurras, Peru; idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Chuchurras.

Range: Central Peru, in depts. of Junín (Puerto Bermúdez) and Huánuco (Chuchurras).

4: Peru (Puerto Bermúdez, Río Pichis, Ucayali drainage basin, dept. Junín 4).

**\**Pipra coronata circumpicta* Zimmer.<sup>2</sup> HUALLAGA MANAKIN.**

*Pipra coronata circumpicta* ZIMMER, Proc. Biol. Soc. Wash., 42, p. 84, 1929—Munichis, Yurimaguas, Peru.

*Pipra cyaneocapilla* (not of HAHN) SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 751—Chyavetas; idem, l.c., 1873, p. 283—part, Chyavetas; TACZANOWSKI, Orn. Pér., 2, p. 343, 1884—part, Chyavetas; SCLATER, Cat. B. Brit. Mus., 14, p. 299, 1888—part, spec. f.i, Chyavetas and Río Huallaga (spec. examined).

*Pipra exquisita* (not of HELLMAYR) HELLMAYR, Ibis, 1906, p. 35—part, Chyavetas and Río Huallaga.

Range: Northeastern Peru, south of the Marañón (Chyavetas; Yurimaguas, lower Huallaga, dept. Loreto).

1: Peru (Munichis, Yurimaguas 1).

**\**Pipra caeruleocapilla* Tschudi.<sup>3</sup> TSCHUDI'S BLUE-CAPPED MANAKIN.**

<sup>1</sup>*Pipra coronata exquisita* HELLMAYR: Agreeing with *P. c. caelesti-pileata* in bright spinach green upper parts and breast, but cap of adult males much paler and more greenish blue (between calamine blue and pale cerulean blue); sides of head and throat lighter cress green (hardly darker than the back), and middle of the belly brighter as well as clearer yellow. Wings (male) 57-60; tail 26-29; bill 8-9.

Males from Puerto Bermúdez are perfectly identical with a cotype from Chuchurras.

Material examined.—Peru: Chuchurras 4; Puerto Bermúdez 4.

<sup>2</sup>*Pipra coronata circumpicta* ZIMMER: Adult male nearest to *P. c. exquisita*, but crown decidedly deeper, about pale cerulean blue, encircled by a light methyl blue border; middle of abdomen somewhat dingier yellow. Wing 57-60; tail 26-28; bill 8-9.

Material examined.—Peru: Yurimaguas (the type) 1; Chyavetas 1; "Huallaga" 1.

<sup>3</sup>*Pipra caeruleocapilla* TSCHUDI, in its velvety black plumage of the male, resembles *P. coronata carbonata*, but is immediately distinguished by the light blue uropygial patch and much paler cap. It is possibly a zonal representative of the *P. coronata* group. The late W. Hoffmanns obtained it at Pozuzo, Río Pozuzo, at elevations of from 800 to 950 meters, while lower down in the same river

*Pipra caeruleocapilla*<sup>1</sup> Tschudi, Arch. Naturg., 10, (1), p. 271, 1844—Peru; idem, Faun. Peru., Aves, p. 145, 1846—Montañas of "northwestern" Peru, we suggest Montañas of Vitoc, dept. Junín; SCLATER, P.Z.S.Lond., 1873, pp. 780, 782—Cosnipata, dept. Cuzco; TACZANOWSKI, l.c., 1874, p. 538—Amable María and Soriano, dept. Junín; idem, Orn. Pér., 2, p. 344, 1884—same localities; SCLATER, Cat. B. Brit. Mus., 14, p. 300, 1888—Peru; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 368—La Gloria, Vitoc and La Merced, Chanchamayo, dept. Junín; idem, Orn., 13, p. 114, 1906—Huaynapata, Marcapata Valley, dept. Cuzco; HELLMAYR, Ibis, 1906, p. 29—Peru (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Peru; idem, Arch. Naturg., 85, A, Heft 10, p. 62, 1920—Chaquimayo, Sierra de Carabaya, Peru.

Range: Upper Tropical Zone of central and southeastern Peru, in depts. Huánuco, Junín, Cuzco, and northern Puno (Sierra de Carabaya).

5: Peru (Huachipa, dept. Huánuco 5).

**\**Pipra iris iris* Schinz. OPALESCENT MANAKIN.**

*Pipra Iris* SCHINZ, Naturg. Vogel, 2nd ed., livr. 7, p. 91, pl. 39,<sup>2</sup> left upper fig. (=male), 1851—"Guyana," errore, we substitute Pará; see ZIMMER, Proc. Biol. Soc. Wash., 38, p. 87, 1925 (crit.).

*Pipra opalizans* PELZELN, Orn. Bras., 2, pp. 128, 186, Sept., 1868—Pará (descr. of male); BERLEPSCH, Ibis, 1898, p. 60, pl. 2 (=male)—Ourém, Rio Guamá; HELLMAYR, Verh. Zool. Bot. Ges. Wien, 53, p. 201, 1903—Benevides, near Pará (descr. of female); idem, Nov. Zool., 12, p. 294, 1905—Igarapé-assí, Pará; idem, l.c., 13, p. 363, 1906—Santo Antonio do Prata; idem, Ibis, 1906, p. 41—Pará district (monog.); SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Santo Antonio do Prata; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—near Pará; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 29, 90, 1912—Peixe-Boi, east of Pará (Pará localities); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 367, 1914—Mocajutuba, Providencia, Ananindeua, Benevides, Apehú, Santa Izabel, Peixe-Boi, and Santo Antonio do Prata, Pará district, and (?) Cussary,<sup>3</sup> lower Amazon; BEEBE, Zoologica (N. Y.), 2, p. 91, 1916—Utinga, near Pará; BOND, Auk, 44, p. 563, 1927—"Patagonia," forty miles east of Pará; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 167, 1928—Utinga, Santa Izabel, and Castanhal, Pará.

valley at Chuchurras, alt. 320 meters, *P. coronata exquisita* was found. Females of the two species are inseparable.

Material examined.—Dept. Huánuco: Pozuzo 7, Huachipa 5.—Dept. Junín: La Gloria 2.—Dept. Cuzco: Marcapata (alt. 1000 meters) 5.—Dept. Puno: Río Huacamayo (alt. 1000 meters) 1, Chaquimayo, Sierra de Carabaya 2.

<sup>1</sup>Sometimes spelled *caeruleicapilla*.

<sup>2</sup>The plate erroneously inscribed "*P. strigilata*."

<sup>3</sup>The locality "Cussary", if correct, may be referable to *P. i. eucephala*.



Range: Northeastern Brazil, in the eastern section of the state of Pará, from the Tocantins east to Ourém, Rio Guamá.<sup>1</sup>

6: Brazil (Utinga, near Pará 6).

**Pipra iris eucephala** Todd.<sup>2</sup> WESTERN OPALESCENT MANAKIN.

*Pipra iris eucephala* TODD, Proc. Biol. Soc. Wash., 41, p. 112, 1928—Miritituba, Rio Tapajóz, Brazil.

Range: Northern Brazil, in the western section of the state of Pará (Santarém, Colonia do Mojuy, and Miritituba, on the right bank of the Rio Tapajóz).

**Pipra nattereri** Sclater.<sup>3</sup> NATTERER'S MANAKIN.

*Pipra nattereri* SCLATER, P.Z.S.Lond., "1864," p. 611, pl. 39, 1865—Borba, Rio Madeira; PELZELN, Orn. Bras., 2, p. 127, 1868—Borba, Rio Madeira and Engenho do Gama, Matto Grosso (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 302, 1888—Borba; HELLMAYR, Ibis, 1906, p. 40—Borba (monog.); SNETHLAGE, Journ. Orn., 56, p. 504, 1908—Villa Braga, Rio Tapajóz; HELLMAYR, Nov. Zool., 14, p. 360, 1907—Borba (crit.); idem, l.c., 17, p. 307, 1910—Calama and Allianca (Rio Madeira), Santa Izabel (Rio Preto), and Jamarysinho, Rio Machados (crit.); idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—left bank of Tapajóz to Rio Madeira; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 366, 1914—Rio Tapajóz (Boim, Villa Braga) and (?) Rio Jamauchim (Tucunaré).<sup>4</sup>

*Pipra gracilis* HELLMAYR, Verh. Zool. Bot. Ges. Wien, 53, p. 202, 1903—Engenho do Gama, Rio Guaporé, Matto Grosso (descr. of female); idem, Ibis, 1906, p. 39—Engenho do Gama.

Range: Northern Brazil, south of the Amazon, from the left bank of the Tapajóz west to the right bank of the Rio Madeira, extending south to western Matto Grosso (Engenho do Gama, Rio Guaporé).

<sup>1</sup>Material examined.—Brazil, Pará: Igarapé-assú 3, Benevides 1, Santo Antonio do Prata 1, Utinga 6, Peixe-Boi 14, Ourém (Rio Guamá) 1.

<sup>2</sup>*Pipra iris eucephala* TODD; "Similar to *P. i. iris* in heavy bill, but adult male with the opalescent feathers of the pileum continued over the forehead almost to the base of the bill; female with the pileum decidedly bluish, in contrast with the back, instead of pure green." (W. E. C. TODD, l.c.).

This is obviously a well-defined race, pointing in certain respects to *P. nattereri*, of the left bank of the Tapajóz, which may ultimately prove to be conspecific with *P. iris*.

<sup>3</sup>*Pipra nattereri* SCLATER is probably a western race of *P. iris*. The females are very much alike, that of *P. nattereri* differing chiefly by reason of its smaller darker bill and more bluish crown. Birds from the Rio Tapajóz are identical with a topotypical series, while those from Calama and farther up the Rio Madeira are, as a rule, more deeply and more solidly green on throat and chest. However, the variation is not constant enough to warrant the recognition of a separate race, for which the name *P. gracilis* would be available.

Material examined.—Rio Tapajóz: Villa Braga 3, Itaituba 3.—Rio Madeira: Borba 16, Calama 14, Allianca 3, Paraíso 1; Santa Izabel, Rio Preto 1; Jamarysinho, Rio Machados 3.—Engenho do Gama, Matto Grosso (female) 1.

<sup>4</sup>Probably referable to *P. iris eucephala*.

**\**Pipra serena serena* Linnaeus. WHITE-FRONTED MANAKIN.**

*Pipra serena* LINNAEUS, Syst. Nat., 12th ed., 1, p. 340, 1766—based on BRISSON, Orn., 4, p. 457, pl. 36, fig. 2, Cayenne and Surinam; DESMAREST, Hist. Nat. Tang., Manak. et Todiers, livr. 4, pl. 62 (male), 1805; livr. 8, pl. 64 (young male or female), 1806—"la Guyane"; VIEILLOT and OUDART, Galerie Ois., 1, (2), p. 95, pl. 72, 1823—"Guyane et Brésil"; WAGLER, Isis, 1830, p. 935—"Guiana," Cajenna (descr.); DESCOURTILZ, Orn. Brés., p. 35, pl. 40, fig. 2, circa 1856—"Maranhão et Pará" (errore); SCLATER, Cat. Coll. Amer. Birds, p. 249, 1862—Cayenne; idem, Cat. B. Brit. Mus., 14, p. 300, 1888—Cayenne; HELLMAYR, Ibis, 1906, p. 38—Cayenne (monog.); BERLEPSCH, Nov. Zool., 15, p. 137, 1908—Ipousin, R. Approuague, French Guiana; PENARD and PENARD, Vog. Guyana, 2, p. 190, 1910—Surinam (?).

*Dasyctopa serena* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 37, 1857—Cayenne.

*Pipra serena serena* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Cayenne.

Range: French Guiana and adjacent districts of northern Brazil (Upper Rocana, northern Pará), possibly also Surinam.<sup>1</sup>

1: French Guiana (Cayenne 1).

**\**Pipra serena suavissima* Salvin and Godman. ORANGE-BELLIED MANAKIN.**

*Pipra suavissima* SALVIN and GODMAN, Ibis, (4), 6, p. 79, pl. 1, 1882—Merumé Mountains and Bartica Grove, British Guiana; SALVIN, l.c., 1885, p. 300—Bartica Grove, Merumé Mts., R. Atapuirow, and Roraima; SCLATER, Cat. B. Brit. Mus., 14, p. 300, 1888—same localities; HELLMAYR, Ibis, 1906, p. 37—British Guiana (monog.); BEEBE, Trop. Wild Life, 1, p. 134, 1917—Bartica Grove; CHUBB, Birds Brit. Guiana, 2, p. 247, 1921—British Guiana (numerous localities).

*Pipra serena* (not of LINNAEUS) SCHOMBURGK, Reisen Brit. Guiana, 2, p. 245, 1848—Our Village, Kukenam Valley, dist. Yuruari, Venezuela; CABANIS, l.c., 3, p. 697, 1848—Roraima region.

*Pipra serena suavissima* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, pl. 3, fig. 6, 1910—British Guiana.

Range: British Guiana and adjacent parts of southeastern Venezuela (dist. Yuruari).<sup>2</sup>

3: British Guiana (Roraima 2, Merumé Mountains 1).

<sup>1</sup>Material examined.—French Guiana: Cayenne 8, Ipousin, Approuague River 2, Tamanoir, Mana River 5, Pied Saut, Oyapock 16.—Brazil: Upper Rocana, northern Pará 3.

<sup>2</sup>Beebe's record (Zoologica, N.Y., 2, p. 91, 1916) from Utinga, near Pará, Brazil requires confirmation. Unfortunately, the specimen is not at present accessible for reexamination.

Material examined.—British Guiana: Roraima 7, Merumé Mts. 3, Quonga 1, Mazaruni River 3, Essequibo River 2.

**\**Pipra chloromeros* Tschudi.<sup>1</sup> PERUVIAN MANAKIN.**

*Pipra chloromeros* TSCHUDI, Arch. Naturg., 10, (1), p. 271, 1844—Peru; idem Faun. Peru., Aves, p. 144, 1846—Montañas of "northwestern" Peru, we suggest valley of Vitoc, dept. Junín; SCLATER and SALVIN, P.Z.S.Lond., 1869, p. 598—Cosnipata, dept. Cuzco; idem, l.c., 1879, p. 617—Baganti, Bolivia; TACZANOWSKI, l.c., 1874, p. 539—Amable María, dept. Junín and Monterico, dept. Ayacucho; idem, l.c., 1882, p. 22—Huambo, Peru; idem, Orn. Pér., 2, p. 339, 1884—Peruvian localities; SCLATER, Cat. B. Brit. Mus., 14, p. 295, 1888—Cosnipata, Peru and Baganti, Bolivia; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 368—La Gloria, La Merced, and Borgoña, dept. Junín; HELLMAYR, Ibis, 1906, p. 17—Peru and Bolivia (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—Peru and Bolivia; HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 62, 1920—Chaquimayo and Yahuar Mayo, Sierra de Carabaya, Peru; CHAPMAN, Bull. U. S. Nat. Mus., 117, p. 99, 1921—Río Cosireni, Urubamba region, Peru; HELLMAYR, Nov. Zool., 32, p. 11, 1925—Yuracares and Santa Cruz, Bolivia.

*Pipra rubrocapilla* (not of TEMMINCK) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 38, 1837—Santa Cruz de la Sierra and Yuracares, Bolivia (descr. of female; spec. in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 294, 1839—Yuracares, Bolivia.

Range: Tropical zone of Bolivia and Peru (north to the valley of Huayabamba).

2: Peru (Vista Alegre, dept. Huánuco 1); Bolivia (Río Espirito Santo 1).

**\**Pipra mentalis mentalis* Sclater. YELLOW-THIGHED MANAKIN.**

*Pipra mentalis* SCLATER, P.Z.S.Lond., 24, "1856," p. 299, pl. 121, Jan., 1857—Córdova, Vera Cruz, Mexico; idem and SALVIN, Ibis, 1859, p. 125, —Guatemala; idem, P.Z.S.Lond., 1870, p. 837—Honduras; SALVIN, Ibis, 1872, p. 318—Chontales, Nicaragua; SCLATER, Cat. B. Brit. Mus., 14, p. 295, 1888—part, spec. a-s, Córdova, Yucatán, Mugerres and Meco Islands, Honduras, Río de la Pasión and Choctum (Guatemala), Chontales (Nicaragua), Angostura, Tucuriquí, and Turrialba (Costa Rica); SALVIN, Ibis, 1889, p. 364—Mugerres and Meco Islands, Yucatán (crit.); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 108, 1890—part, Mexico to (eastern) Costa Rica; RICHMOND, Proc. U.S.Nat. Mus., 16, p. 509, 1893—Río Escondido, Nicaragua (habits); HELLMAYR, Ibis, 1906, p. 13—Mexico to Nicaragua (monog.); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Los Amates, Guatemala.

<sup>1</sup>*Pipra chloromeros* TSCHUDI differs from the other red-headed species by reason of the strongly rounded tail, with the shafts of the lateral rectrices rigid and somewhat thickened at the base.

Material examined.—Peru: Huambo 1, Huayabamba 2; Pozuzo, Huánuco 2, Vista Alegre, Huánuco 1; La Gloria, Junín 3; Chaquimayo 5, Yahuar Mayo, Sierra de Carabaya 1.—Bolivia: San Mateo 12, Río Espirito Santo 1, Yuracares 1, Santa Cruz 1.



*Pipra mentalis mentalis* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 746, 1907—southeastern Mexico to Nicaragua (monog., full bibliography); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—Mexico to Nicaragua.

*Pipra mentalis ignifera* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 747, 1907—part, east Costa Rican localities and references; CARRIKER, Ann. Carnegie Mus., 6, p. 681, 1910—part, La Florida, Cuabre, Río Sicsola.

Range: Southeastern Mexico (in states of Vera Cruz, Tabasco, Campeche, and Yucatán) and southward through Guatemala, British Honduras, Honduras, and Nicaragua to eastern Costa Rica (Talamanca).<sup>1</sup>

13: Guatemala (Los Amates, Izabal 5, unspecified 1); Nicaragua (San Emilio, Lake Nicaragua 5); Costa Rica (Orosi 2).

**\**Pipra mentalis ignifera* Bangs. SOUTHERN YELLOW-THIGHED MANAKIN.**

*Pipra mentalis ignifera* BANGS, Auk, 18, p. 363, 1901—Divala, Chiriquí; idem, l.c., 24, p. 303, 1907—Boruca, Paso Real, Pozo del Río Grande, western Costa Rica; HELLMAYR, Ibis, 1906, p. 15—part, Chiriquí and Costa Rica (excl. Angostura and Paiz) (monog.); RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 747, 1907—part, Chiriquí and western Costa Rica (monog., full bibliography); CARRIKER, Ann. Carnegie Mus., 6, p. 681, 1910—part, western Costa Rica (habits); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, Chiriquí and Costa Rica; KENNARD and PETERS, Proc. Boston Soc. N. H., 38, p. 457, 1928—Boquete Trail, Panama.

*Pipra mentalis* (not of SCLATER, 1857) SALVIN, P.Z.S.Lond., 1870, p. 200—Mina de Chorrcha and Bugaba, Chiriquí; SCLATER, Cat. B. Brit. Mus., 14, p. 295, 1888—part, spec. v, Bugaba, Chiriquí; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 108, 1890—part, Bugaba and Mina de Chorrcha; CHERRIE, Anal. Inst. Fisico-Geog. Nac. Costa Rica, 6, p. 72, 1893—Río Naranjo, Costa Rica; UNDERWOOD, Ibis, 1896, p. 439—Volcán de Miravelles, Costa Rica; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 369, p. 6, 1899—Chiriquí.

Range: Western Costa Rica and western Panama (Chiriquí).<sup>2</sup>

4: Costa Rica (Boruca 3, Térraba 1).

**\**Pipra mentalis minor* Hartert.<sup>3</sup> LESSER YELLOW-THIGHED MANAKIN.**

<sup>1</sup>The few adult males seen from eastern Costa Rica (Orosi, Angostura, Talamanca) appear to me decidedly referable to the northern race, with which they agree in proportion of tail, pale yellow thighs and chin-spot, as well as in the more crested, flame-scarlet head.

Twenty-nine specimens from Mexico (Córdoba) to Nicaragua, and five from eastern Costa Rica examined.

<sup>2</sup>Material examined.—Panama: Chiriquí 15, Sevilla Island 2.—Costa Rica (Boruca, Pozo Azul de Pirris, Térraba, Miravelles) 22.

<sup>3</sup>*Pipra mentalis minor* HARTERT: Adult male agreeing with *P. m. ignifera* in deep black under parts; but on average smaller, with shorter, weaker bill; head

*Pipra mentalis minor* HARTERT, Nov. Zool., 5, p. 489, 1898—Cachaví, prov. Esmeraldas, Ecuador (type examined); HELLMAYR, Ibis, 1906, p. 16—western Ecuador (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—western Ecuador; idem, P.Z.S.Lond., 1911, p. 1139—Río Cajón, Sipi, Noanamá, and Nóvita, Pacific Colombia; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 480, 1917—Baudó, Noanamá, Nóvita, San José, and Barbacoas, Colombia; idem, l.c., 55, p. 531, 1926—Esmeraldas and Río de Oro, Ecuador; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 179, 1929—Cana, Darién.

*Chiroxiphia mentalis* (not *Pipra mentalis* SCLATER) LAWRENCE, Ann. Lyc. Nat. Hist. N. Y., 7, p. 296, 1862—Lion Hill, Panama.

*Pipra mentalis* SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 362—Panama; SCLATER, Cat. B. Brit. Mus., 14, p. 295, 1888—part, spec. w-a<sup>1</sup>, Panama; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 108, 1890—part, Lion Hill, Panama.

*Pipra mentalis ignifera* (not of BANGS) HELLMAYR, Ibis, 1906, p. 15—part, Lion Hill, Panama; RIDGWAY, Bull. U. S. Nat. Mus., 50, Part 4, p. 747, 1907—part, Panama; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, Panama; STONE, Proc. Acad. Nat. Sci. Phila., 70, p. 268, 1918—Gatún, Panama.

*Pipra mentalis* subsp. *minor* SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Río Peripa, Ecuador.

Range: Tropical lowlands of the Pacific coast of Ecuador and Colombia, north to eastern Panama (Canal Zone).

6: Ecuador (Carondeled, prov. Esmeraldas 1); Colombia (Condoto, Río Condoto 1); Panama (Barro Colorado Island 4).

**\**Pipra erythrocephala erythrocephala* (Linnaeus). GOLDEN-HEADED MANAKIN.**

*Parus erythrocephalus* LINNAEUS, Syst. Nat., 10th ed., 1, p. 191, 1758—based on EDWARDS, Nat. Hist. Birds, 1, p. 21, lower figure, Surinam.

*Pipra aurocapilla*<sup>1</sup> LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 29, 1823—"Brazil" (descr. of male); WAGLER, Isis, 1830, p. 934—Cayenne (descr.);

even deeper red, this being particularly noticeable on the forehead and crown; gonydeal angle but narrowly bordered with yellow; inner secondaries only with narrower, yellowish inner margins; thighs somewhat paler; female merely distinguishable by shorter wings, smaller bill, and more yellowish under wing coverts. Wing (male) 55-58; tail 26-28; bill 8-9 with topotypes.

Birds from western Colombia agree in coloration and small bill, but approach *P. m. ignifera* in length of wing and tail, ten adult males measuring 57-60, resp. 28-29 mm. Three from Panama, however, are small again (wing 54-55 mm.), though their bills are larger than in Ecuadorian specimens.

Material examined.—Ecuador, prov. Esmeraldas (Cachaví, San Javier, Carondeled) 15.—Colombia: Río Cajón 2, Sipi 4, Noanamá 4, Nóvita 6, Condoto, Río Condoto 1.—Panama: Barro Colorado Island 4.

<sup>1</sup>Frequently spelled *auricapilla*.



- SCHOMBURGK, Reisen Brit. Guiana, 1, p. 215, 1847—Whomana River, an affluent of the Barima; CABANIS, l.c., 3, p. 696, 1848—British Guiana; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 444, 1856—"bei Pará" and Guyana; PELZELN, Orn. Bras., 2, p. 127, 1868—Barra [= Manáos], São Pedro, Marabitanas, Barcellos, and Rio Içanna, Rio Negro region (spec. examined); TAYLOR, Ibis, 1864, p. 87—Trinidad; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—"Pará" (errore) and Barra do Rio Negro; idem, l.c., 1868, p. 628—San Esteban, Venezuela; FINSCH, l.c., 1870, p. 573—"Trinidad"; SCLATER and SALVIN, l.c., 1879, p. 516—Remedios and Neche, Antioquia; SALVIN and GODMAN, Ibis, 1880, p. 169—Minca, Santa Marta; SALVIN, Ibis, 1885, p. 300—Bartica Grove, Camacusa, Merumé Mts., Atapuwow River, and Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 296, 1888—part, spec. a-q, e'-l', Cayenne, Maroni River, Georgetown, Bartica Grove, Camacusa, Atapuwow River, Roraima, "Pará" (errore), San Esteban, Venezuela, Cauca, Minca, and Chepo, Panama; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 109, 1890—Chepo, Panama; CHAPMAN, Bull. Amer. Mus. N.H., 6, p. 45, 1894—Princetown, Trinidad; BANGS, Proc. Biol. Soc. Wash., 12, p. 137, 1898—Santa Marta; ALLEN, Bull. Amer. Mus. N.H., 13, p. 156, 1900—Bonda, Onaca, Minca, Agua Dulce, Las Nubes, and Valparaiso, Santa Marta district; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Mahury, French Guiana.
- Pipra chrysocephala* DESCOURTILZ, Ornith. Brésil., Part 4, p. 36, pl. 41, fig. 1, circa 1856—"Au Maranhão et Pará" (errore).
- Pipra erythrocephala actinosa* BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 214, 1922—Mount Sapo, eastern Panama; GRISCOM, Amer. Mus. Novit., 282, p. 7, 1927—Chimán, Panama; idem, Bull. Mus. Comp. Zool., 69, p. 178, 1929—El Tigre, Rio Cupe, Darién.
- Dixiphia erythrocephala* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 37, 1857—Cayenne.
- Pipra erythrocephala* LÉOTAUD, Ois. Trinidad, p. 255, 1866—Trinidad; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 53, 1902—Maipures, Somborge, and Nericagua, Río Orinoco, and Suapure, La Pricion, Nicare, and La Unión, Río Caura, Venezuela (spec. examined); HELLMAYR, l.c., 13, p. 27, 1906—Caparo, Valencia, Chaguaramas, and Pointe Gourde, Trinidad; idem, l.c., 14, p. 30, 1907—Obidos (crit.; occurrence at Pará denied); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 190, 1906—Aripo, Trinidad; HELLMAYR, Ibis, 1906, p. 20—part, Guiana, Venezuela, Trinidad, Rio Negro, Colombian localities (except Bogotá), and Panama; BERLEPSCH, Nov. Zool., 15, pp. 137, 318, 1908—Ipousin, R. Approuague, Cayenne, and Mahury, French Guiana; BEEBE, Zoologica (N.Y.), 1, p. 94, 1909—Guanoco, Orinoco Delta, Venezuela; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 365, 1914—Rio Jary (Santo Antonio da Cachoeira), Monte Alegre, Rio Maecurú, Obidos, and Rio Jamundá (Faro); CHUBB, Birds Brit. Guiana, 2, p. 245, 1921—British Guiana (numerous localities).
- Pipra erythrocephala erythrocephala* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 748, 1907—eastern Panama through Colombia and Venezuela to Trinidad and Cayenne; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 364,

1908—Aripo and Carenage, Trinidad; idem, l.c., 2, p. 248, 1916—from Somborge, near mouth of Río Meta, up the Orinoco, and Caura Valley; HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 86, 1912—San Esteban, Cumbre Chiquita, and Las Quiguas, Carabobo; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 479, 1917—Río Salaquí, Los Cisneros (Río Dagua), Puerto Valdivia and Río Frío, Cauca, and west of Honda, Colombia (spec. examined); BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—Lelydorp, Wanaweg, Javaweg, and Rijsdijkweg, Surinam; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 334, 1922—Onaca, Cincinnati, La Trigrera, Las Vegas, Las Taguas, Minca, and Don Diego, Colombia; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 179, 1929—Cana, Darién (crit.).

Range: French, Dutch, and British Guiana; extreme north-eastern Brazil, from the Guianan border south to the north bank of the lower Amazon, west to the Rio Negro; Trinidad; Venezuela, from the north coast south to the Orinoco Valley; Colombia, west of the Eastern Andes (except the valley of the Río Lebrija), and eastern Panama, west to the Canal Zone (Chepo).<sup>1</sup>

5: Dutch Guiana (Lelydorp, Surinam 1); British Guiana (Hyde Park, Demerara River 2); Venezuela (Puerto Cabello, Carabobo 1); Brazil (Conceição, Rio Branco 1).

<sup>1</sup>Further subdivision of this race appears to be impracticable. Adult males from Trinidad, the north coast of Venezuela, Santa Marta, and Darién (eastern Panama) have the head generally of a slightly deeper orange yellow hue, but as only about 40% of the specimens are distinguishable, I do not see any advantage in recognizing *P. e. actinosa*. Birds from the Caura River are precisely similar to a Guianan series, while those from the north bank of the lower Amazon (Obidos and Rio Maecurú) and Manáos are among the smallest I have seen. Specimens from Pacific Colombia (Río Salaquí; Murindo and Sautata, Río Atrato; Los Cisneros, Río Dagua) agree with those from the northern districts (Santa Marta; Jaraquiel, Bolívar) and Panama. Birds from the Cauca Valley evidently form the transition to *P. e. flammiceps*. One male each from Puerto Valdivia and Río Frío are inseparable, in size as well as in coloration, from the specimen with the most deeply colored head from the Pacific coast (Murindo; Carnegie Museum, No. 64179), while another from Puerto Valdivia, by reason of its shorter wings and more reddish orange cap, closely approaches the paler example of *flammiceps* from El Tambor. Three males from west of Honda, Magdalena River, however, are again indistinguishable from the Santa Marta average. On the upper Rio Negro, this form gradually passes into the western *P. e. berlepschi*, and six (out of seven) males from Barcellos and various localities farther up the river have the light cadmium yellow head of that form, though in dimensions they rather agree with Guianan specimens. Females vary much individually.

Material examined.—French Guiana: Cayenne 7, Mana 1, Tamanoir, Mana River 10, Pied Saut, Oyapock 7, Mahury 1.—Dutch Guiana: Lelydorp 1, near Paramaribo 4.—British Guiana: Demerara River 2, Merumé Mountains 2.—Brazil: Upper Rocana 1; Conceição, Rio Branco 1; Obidos 2; Rio Maecurú 1; Manáos 6; Barcellos 2; Marabitanas 4; Rio Içanna [=Rio Isana] 1; Rio Xié 1.—Venezuela: Maripa, Caura 5, Upper Caura 1, El Llqual, Caura district 3; Puerto Cabello 3, San Esteban 3, Las Quiguas 4, Cumbre Chiquita 1; Nevesi, Paría Peninsula 2, Yacua, Paría Peninsula 2.—Island of Trinidad 28.—Colombia: Santa Marta region 21; Jaraquiel, Bolívar 3; west of Honda, Magdalena Valley 3; Puerto Valdivia, lower Cauca 2; Río Frío, Cauca 1; Los Cisneros, Río Dagua 3; Murindo, Antioquia 1; Sautata, Río Atrato 1; Río Salaquí, Chocó 1.—Panama: Mount Sapo, Darién 20.

**\**Pipra erythrocephala berlepschi* Ridgway.<sup>1</sup> BERLEPSCH'S GOLDEN-HEADED MANAKIN.**

*Pipra erythrocephala berlepschi* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 117, 1906—Nauta, northeastern Peru; MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B. 60, 1911—Gualaquiza, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 480, 1917—La Morelia, Florencia, Buenavista, and Villavicencio, eastern Colombia (spec. examined); idem, l.c., 55, p. 530, 1926—Zamora, Río Suno, and below San José, Ecuador (spec. examined); BANGS and NOBLE, Auk, 35, p. 453, 1918—Perico, Río Marañón, Peru; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Río Suno, Ecuador.

*Pipra auricapilla* (not of LICHTENSTEIN) SCLATER P.Z.S.Lond., 26, p. 457, 1858—Gualaquiza, Ecuador; SCLATER and SALVIN, l.c., 1866, p. 567—Peru (probably Nauta); idem, l.c., 1867, p. 751—Chyavetas, Peru; idem, l.c., 1867, p. 978—Pebas; idem, l.c., 1873, p. 283—Nauta, Chyavetas, Pebas; TACZANOWSKI, Orn. Pér., 2, p. 340, 1884—Nauta, Chyavetas, Iquitos; SCLATER, Cat. B. Brit. Mus., 14, p. 296, 1888—part, spec. r-d', Pebas, Chyavetas (Peru), Río Napo, Bogotá; ALLEN, Bull. Amer. Mus. N.H., 2, p. 72, 1889—Río Napo, Ecuador; BERLEPSCH, Journ. Orn., 37, p. 99, 1889—Tonantins, Rio Solimões; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 1899—Gualaquiza and Zamora; GOODFELLOW, Ibis, 1901, p. 708—Coca, upper Napo.

*Pipra erythrocephala* (not of LINNAEUS) HELLMAYR, Ibis, 1906, p. 20—part, "Tocantins" [= Tonantins], Rio Solimões, Brazil, Peru, eastern Ecuador, and Bogotá; idem in WYTSMAN, Gen. Av. Part 9, p. 7, 1910—part, Ecuador, Peru, eastern Colombia.

Range: Upper Amazonia, from the eastern slope of the East Colombian Andes (north to Boyacá) through eastern Ecuador south to the north bank of the Rio Solimões in Brazil (Tonantins) and to northern Peru (chiefly on the north bank of the Marañón, but crossing that river west of the Huallaga).

15: Colombia (Bogotá 5); Peru (Moyobamba 9, Yurimaguas 1).

<sup>1</sup>*Pipra erythrocephala berlepschi* RIDGWAY: Similar to *P. e. erythrocephala*, but on average larger, and head in adult male decidedly paler, cadmium yellow rather than orange, without any, or with mere traces of a blood-red posterior margin.

Birds from eastern Colombia, Ecuador, and Peru agree well together, while three males from Tonantins, Rio Solimões, Brazil, have a slight suggestion of the red posterior border to the yellow cap. On the Solimões as well as in Peru, the range of this race is separated from that of the red-headed form by the Amazon Valley, and in the eastern section of the Marañón River it apparently is found only on its northern bank. However, west of the junction of the Huallaga River, it crosses the Marañón, numerous specimens having been taken at Chyavetas and Moyobamba.

Material examined.—Colombia: "Bogotá" 15; Palmar, Boyacá 3; La Colorado, Boyacá 2; Villavicencio 1; Florencia, Caquetá 3; La Morelia, Caquetá 2.—Ecuador: Río Suno 10, San José 5, Zamora 6.—Peru: Río Tigre 1, Nauta 2, Pebas 2, Chyavetas 1, Moyobamba 9, Yurimaguas 1.—Brazil: Tonantins, Rio Solimões 3.



**Pipra erythrocephala flammiceps** Todd.<sup>1</sup> FLAME-HEADED MANAKIN.

*Pipra erythrocephala flammiceps* TODD, Proc. Biol. Soc. Wash., 32, p. 115, 1919—El Tambor, Santander, Colombia (type examined).

(?) *Pipra auricapilla* (not of LICHTENSTEIN) BERLEPSCH, Journ. Orn., 32, p. 304, 1884—Bucaramango.

Range: Eastern Colombia (Valley of the Río Lebrija, dept. Santander).

**\*Pipra erythrocephala rubrocapilla** Temminck.<sup>2</sup> RED-HEADED MANAKIN.

*Pipra rubrocapilla*<sup>3</sup> TEMMINCK, Nouv. Rec. Pl. Col., livr. 9, pl. 54, fig. 3 (male), 1821—"Brésil," we suggested Bahia as type locality; SCLATER, P.Z.S. Lond., 25, p. 265, 1857—Ega, Rio Solimões; PELZELN, Orn. Bras., 2, p. 127, 1868—Bahia, Engenho do Gama (Matto Grosso), Borba (Rio Madeira), and Manaqueri (Rio Solimões), Brazil (spec. examined); SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 283—Santa Cruz, Río Huallaga, Peru (spec. in Tring Museum examined); FORBES, Ibis, 1881, p. 344—Caxanga, Recife, and Beberibi, Pernambuco; SCLATER, Cat. B. Brit. Mus., 14, p. 295, 1888—Pernambuco, Bahia, "Rio Claro, Goyaz,"<sup>4</sup> "Iquitos," Peru,<sup>4</sup> Ega, Brazil; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Cantagallo and Nova Friburgo; idem, l.c., 6, p. 435, 1905—Rio Juruá (spec. examined); HELLMAYR, Ibis, 1906, p. 11—Brazil and eastern Peru (monog.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 299, 1907—Porto Cachoeira (Espírito Santo), Bahia, Rio Juruá, and Santarém; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará, Rio Capim, Castanhal; idem, l.c., 56, p. 12, 1908—Cachoeira, Rio Purús; idem, l.c., p. 504, 1908—Villa Braga, Rio Tapajóz; idem, l.c., p. 529, 1908—Arumatheua, Rio Tocantins; HELLMAYR, Nov. Zool., 14, p. 49, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 307, 1910—Calama, Allianca, and

<sup>1</sup>*Pipra erythrocephala flammiceps* TODD: Very close to *P. e. erythrocephala*, but slightly smaller; adult male with head more deeply colored, occiput and hind neck being strongly suffused with orange chrome; sides of head likewise more reddish orange; no red posterior border to cap. Wing (two adult males) 54; tail 18; bill  $8\frac{1}{2}$ .

This form rests on two males from the Río Lebrija in the Carnegie Museum. The type has a redder head than any specimen of the Golden-headed Manakin seen by me. The second example, taken on the same day, however, is less characteristic, being closely approached by one of the Puerto Valdivia skins in the American Museum of Natural History. As pointed out above, birds from the Honda region appear to be inseparable from typical *erythrocephala*, leaving rather a peculiarly restricted habitat for *flammiceps*. More information is necessary before its claims for distinction can be considered as established.

Material examined.—Colombia: El Tambor, Río Lebrija, Santander 2.

<sup>2</sup>An earlier name is possibly *Pipra erythrolophos* VIEILLOT (Tabl. Enc. Méth., Orn., 1, livr. 89, p. 390, 1820—"le Pérou"). No mention being made of the coloration of thighs or under wing coverts, it cannot be decided, however, whether it is referable to *P. e. rubrocapilla* or *P. chloromeros*, both of which are found in Peru. The type is not in the Paris Museum.

<sup>3</sup>Often spelled *rubricapilla*.

<sup>4</sup>Localities doubtless erroneous.



Maroins (Rio Machados), Rio Madeira; idem in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—eastern Peru and Brazil, south of the Amazon; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 365, 1914—Pará, Mocajutuba, Providencia, Ananindeua, Benevides, Santa Izabel, Castanhal, Peixe-Boi, Santo Antonio do Prata, Rio Capim (Aproaga), Rio Mojú, Rio Tocantins (Arumatheua), Rio Xingú (Victoria), Tamucury, Rio Tapajóz (Boim, Villa Braga), Rio Purús (Cachoeira); LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, Bahia.

*Pipra erythrocephala* (not of LINNAEUS) WIED, Reise Bras., 1, p. 187 (ed. in 8vo p. 184), 1820—Barra do Jucú, Espírito Santo; LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 29, 1823—Brazil (descr. of female); WIED, Beitr. Naturg. Bras., 3, (1), p. 422, 1830—eastern Brazil; WAGLER, Isis, 1830, p. 933—"Guiana," Brasília; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 433, 1856—Nova Friburgo, Rio.

*Pipra auricapilla* (not of LICHTENSTEIN) LAYARD, Ibis, 1873, p. 384—Nazaré, near Pará (seen only); GOELDI, Ibis, 1903, p. 499—Rio Capim.

*Pipra rubrocapilla* subsp. HELLMAYR, Nov. Zool., 13, p. 362, 1906—Santo Antonio do Prata, Pará (crit.).

*Pipra erythrocephala rubrocapilla* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 27, 90, 1912—Peixe-Boi and Ipitanga (Pará localities); BEEBE, Zoologica (N.Y.), 2, p. 90, 1916—Utinga, near Pará; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 167, 1928—Pará, Rio Guamá, Rio Inhagapy, Pinheira, Pará district.

Range: Brazil, south of the Amazon, extending along the Rio Madeira south to western Matto Grosso (Rio Guaporé) and on the east coast to Espírito Santo and Rio de Janeiro; also the adjacent section of northeastern Peru, east of the Huallaga River (Santa Cruz).<sup>1</sup>

10: Brazil (Bahia 2; Santo Amaro, Bahia 3; Magoary, Pará 1; Utinga, Pará 3; Santarém 1).

**\**Pipra pipra anthracina* Ridgway.<sup>2</sup> ZELEDÓN'S MANAKIN.**

<sup>1</sup>There is obviously no local variation in the Red-headed Manakin, specimens from eastern Brazil (Bahia, Rio de Janeiro) being inseparable from an Amazonian series. A single adult male obtained by E. Bartlett at Santa Cruz, on Sept. 24, 1866, likewise compares well with the Brazilian average. Certain skins from Pará exhibit a decided tendency toward *P. e. erythrocephala*, of the north bank, by having the bases of the feathers on the anterior crown distinctly orange.

In addition to the scarlet head, *P. e. rubrocapilla* may be distinguished from the yellow-headed forms by its longer tail and more grayish green (less yellowish) under parts of the female sex.

Material examined.—Brazil: Rio de Janeiro 1; Bahia 15, Santo Amaro, Bahia 3; São Lourenço, Pernambuco 5; Pará region 24; Santarém 1; Rio Madeira, Calama 3, Borba 5, Maroins 1; Engenho do Gama, Matto Grosso (♂ ad.) 1; Manaqueri, Rio Solimões 3; Teffé 4; Rio Juruá 1.—Peru: Santa Cruz 1.

<sup>2</sup>*Pipra pipra anthracina* RIDGWAY: Adult male closely similar to *P. p. coracina*, but decidedly smaller; body plumage duller, opaque velvety black, without trace of the bluish gloss; under tail coverts mostly tipped with grayish or dingy yellowish. Wing 60-63; tail 27-29; bill 9. No female seen.

Material examined.—Panama: Chiriquí 1; Chitrá, Veraguas 1; Cordillera de Tolé 1; Veraguas (unspecified) 6.

*Pipra pipra anthracina* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 117, 1906—Moravia, Costa Rica; idem, Bull. U.S. Nat. Mus., 50, Part 4, p. 751, 1907—Panama and southwestern Costa Rica (monog., full bibliography); CARRIKER, Ann. Carnegie Mus., 6, p. 680, 1910—Guayabo, Costa Rica.

*Pipra leucocilla* (not of LINNAEUS) SALVIN, P.Z.S.Lond., 1867, p. 149—Cordillera de Tolé, Veragua (spec. examined); idem, l.c., 1870, p. 200—Calovevora, Chitrá, and Boqueti de Chitrá, Veragua (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. c-h, Chitrá, Calevovora, Santa Fé, and Cordillera de Tolé, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 110, 1890—part, Panama; CHERRIE, Proc. U. S. Nat. Mus., 14, p. 536, 1891—Costa Rica (female descr.); HELLMAYR, Ibis, 1906, p. 22—part, Veragua.

*Pipra leucocilla anthracina* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—southwestern Costa Rica and Veragua; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 29, 1912—Costa Rica and western Panama (crit.).

Range: Costa Rica (Moravia; Guayabo) and western Panama (Chiriquí; Veraguas).

1: Panama (Veraguas 1).

### *Pipra pipra minima* Chapman.<sup>1</sup> LEAST MANAKIN.

*Pipra leucocilla minor* (not *Pipra mentalis minor* HARTERT, 1898) CHAPMAN, Bull. Amer. Mus. N. H., 33, p. 623, 1914—Cocal, Western Andes of Colombia (type examined).

*Pipra leucocilla minimus* CHAPMAN, Bull. Amer. Mus. N. H., 36, p. 480, 1917—new name for *P. leucocilla minor* CHAPMAN, preoccupied; Cocal, Colombia.

Range: Western Andes of Colombia (Cocal, west of Popayán).

### \**Pipra pipra coracina* Sclater.<sup>2</sup> SCLATER'S BLACK MANAKIN.

*Pipra coracina* SCLATER, P.Z.S.Lond., 24, p. 29, June, 1856—Bogotá (type in British Museum examined); idem, l.c., 26, p. 71 1858—Río Napo, Ecuador.

<sup>1</sup>*Pipra pipra minima* CHAPMAN: Adult male most nearly resembling *P. p. coracina* and body plumage, as in this form, velvety black, with a slight silky gloss; but much smaller; white crest shorter; under tail coverts tipped with grayish, as in *P. p. anthracina*. Female unknown. Wing (two adult males from Cocal) 54-55; tail 24-25; bill  $8\frac{1}{2}$ -9.

<sup>2</sup>*Pipra pipra coracina* SCLATER: Differing from *P. p. pipra* by larger size; deep velvety black but faintly glossed body plumage of the adult male, and brighter green coloration, particularly below, of the female sex. Wing (male) 66-70, (female) 67; tail 27-32; bill 9.

Ecuadorian specimens agree with those from Bogotá, and so does also a single male from Pomará, Peru, in the American Museum of Natural History. A male from the Boca de Río Curaray, in southeastern Ecuador, however, hardly differs from *P. p. pipra*.

Material examined.—Colombia: Bogotá 8, Buenavista 2.—Ecuador: San José 5, Gualaquiza 2, "Río Napo" 3; Guayaba, Río Zamora 1; Río Suno, above Avila 1.—Peru: Pomará, lower Marañón 1.

*Pipra leucocilla* (not of LINNAEUS) SCLATER, P.Z.S.Lond., 22, p. 114, 1854—Quijos, Ecuador; idem, l.c., 23, p. 152, 1855—Bogotá; idem, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. i-o, Bogotá, Sarayacu, and Río Napo; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Gualaquiza, Ecuador.

*Pipra leucocilla coracina* HELLMAYR, Ibis, 1906, p. 26—part, Bogotá and eastern Ecuador; idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Colombia and Ecuador; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26. No. 2, p. 29, 1912—Colombia and eastern Ecuador (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 481, 1917—Buenavista (above Villavicencio) and Andalucía, Eastern Andes, Colombia; idem, l.c., 55, p. 531, 1926—Guayaba, Zamora, Río Suno, and below San José, Ecuador.

Range: Tropical Zone of the Eastern Andes of Colombia,<sup>1</sup> eastern Ecuador, and northwestern Peru (Pomará, lower Marañón, dept. Amazonas).

1: Colombia (Bogotá 1).

**\**Pipra pipra pipra* Linnaeus. WHITE-CROWNED BLACK MANAKIN.**

*Parus pipra* LINNAEUS,<sup>2</sup> Syst. Nat., 10th ed., 1, p. 190, 1758—based on "Cacototoli" SEBA, Thes., 2, p. 102, pl. 96, fig. 5, "in Indiis"=Surinam.

*Pipra leucocilla* LINNAEUS, Mus. Ad. Frid., 2, Prodr., p. 33, 1764—no locality indicated, Surinam suggested as type locality (auct. BERLEPSCH and HARTERT, 1902); SCHOMBURGK, Reisen Brit. Guiana, 1, p. 215, 1847—Whomana River, affluent of the Barima; CABANIS, l. c., 3, p. 697, 1848—British Guiana; PELZELN, Orn. Bras., 2, p. 127, 1868—Barra do Rio Negro [= Manáos ], Marabitanas, and Rio Içanna, Rio Negro (spec. examined); SALVIN, Ibis, 1885, p. 300—Bartica Grove, Camacusa, and Merumé Mts., British Guiana; W. SCLATER, l. c., 1887, p. 318—Maccasseema, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. w-c', Bartica Grove, Camacusa, Cayenne, Maroni River; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 53, 1902—Suapure, La Pricion, and Nicare, Caura River, Venezuela (spec. examined); MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Camopi, Mahury, and Oyack Mts., French Guiana; HELLMAYR, Ibis, 1906, p. 22—part, Cayenne, Surinam, British Guiana, eastern Venezuela (Caura), and Rio Negro; BERLEPSCH, l. c., 15, pp. 137, 318, 1908—Ipousin, Appiouague River (French Guiana) localities; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 14, p. 12, 1908—French Guiana; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 365, 1914—part, Rio Jary (Santo Antonio da Cachoeira), Obidos, and Rio Jamundá (Faro); CHUBB, Birds Brit. Guiana, 2, p. 246, 1921—British Guiana (numerous localities).

<sup>1</sup>*Pipra leucocilla* SCLATER and SALVIN (P.Z.S.Lond., 1875, p. 237—San Cristóbal, Táchira, western Venezuela) probably belongs here. Unfortunately, the specimens are lost.

<sup>2</sup>Although the more detailed description, added on p. 191, refers to another species, *Arundinicola leucocephala*, as pointed out by BERLEPSCH and HARTERT (Nov. Zool., 9, p. 50, note\*, 1902), Linnaeus's diagnosis and references pertain exclusively to the White-crowned Black Manakin which must, therefore, be called *P. p. pipra* (see ZIMMER, Proc. Biol. Soc. Wash., 42, pp. 86-87, 1929).



*Pipra leucocapilla* GMELIN, Syst. Nat., 1, (2), p. 1002, 1789—new name for *Pipra leucocilla* LINNAEUS.

*Pipra leucocilla leucocilla* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, Guiana, Venezuela, and northwestern Brazil (Rio Negro); idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 28, 1912—part, excl. Peru; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—Lelydorp, Libanonweg, and Rijsdijkweg, Surinam.

*Pipra pipra pipra* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 248, 1916—Caura, Venezuela.

Range: French, Dutch, and British Guiana; eastern Venezuela (Caura Valley); northern Brazil, north of the Amazon, west to the Rio Negro and Manacapurú, Rio Solimões.<sup>1</sup>

13: French Guiana (Saint Jean du Maroni 1, Saint Laurent du Maroni 1); Dutch Guiana (Rijsdijkweg 1); British Guiana (Demerara River 3, Caramang River 3); Brazil (Conceição, Rio Branco 3; Itacoatiará 1).

**\**Pipra pipra microlopha* Zimmer.<sup>2</sup> SHORT-CRESTED MANAKIN.**

*Pipra pipra microlopha* ZIMMER, Proc. Biol. Soc. Wash., 42, p. 85, 1929—Puerto Bermúdez, Río Pichis, Ucayali drainage basin, Peru.

*Pipra leucocilla* (not of LINNAEUS) SCLATER, P. Z. S. Lond., 25, p. 265, 1857—Ega, Rio Solimões; SCLATER and SALVIN, l. c., 1866, p. 190—Sarayacu, Río Ucayali, Peru; idem, l. c., 1873, p. 283—part, Sarayacu; TACZANOWSKI, Orn. Pér., 2, p. 341, 1884—part, Sarayacu; SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. q, r, Ega and Río Ucayali; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá; idem, Cat. Faun. Braz., 1, p. 299, 1907—part, Rio Juruá; HELLMAYR, Ibis, 1906, p. 22—part, Ega, Rio Juruá, Brazil, and Sarayacu, Peru; idem, Nov. Zool., 14, p. 49, 1907—Teffé, Rio Solimões.

<sup>1</sup>Birds from Manacapurú and the Rio Negro are identical with series from Guiana and eastern Venezuela (Caura Valley).

Material examined.—French Guiana: Maroni River 2, Ipousin, Approuague River 1.—Dutch Guiana: Near Paramaribo 4, Rijsdijkweg 1.—British Guiana: Demerara River 3, Caramang River 3, Camacusa 3.—Brazil: Rio Negro (Manãos, Marabitanas, Rio Içanna [=Rio Isana]) 15; Manacapurú, Rio Solimões 3.—Venezuela: Caura Valley (Suapure, Nicare, La Pricion) 25.

<sup>2</sup>*Pipra pipra microlopha* ZIMMER: Adult male nearest to *P. p. comata*, but crest decidedly shorter and ending in a point instead of being rounded posteriorly, and upper parts less glossed with metallic blue. Wing (adult male) 65-69; tail 29-30; bill 8½-9.

This form cannot well be united to any other known race. Although more information about the exact limits of its range is urgently desired, it appears to replace *P. p. comata* in the low tropical districts of eastern Peru. By its less glossy plumage in the male sex, it points in the direction of *P. p. coracina*, but has a much shorter, differently shaped crest with much less black at the base of the feathers. Birds from Orosa (on the south bank of the Marañón about halfway between the mouth of the Napo and Pebas, dept. Loreto) and São Paulo de Olivença, Brazil, agree with the type except in being slightly larger and in having more extensive dusky bases to the crest feathers. Here should no doubt also be referred specimens recorded as *P. leucocilla* from Sarayacu (Ucayali), Teffé (Rio Solimões), and Juruá.



*Pipra leucocilla leucocilla* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—part, Rio Solimões, Rio Juruá, and northeastern Peru.

Range: Tropical lowlands of the Ucayali drainage basin in eastern Peru, south to Puerto Bermúdez, dept. Junín, north to the south bank of the Marañón,<sup>1</sup> and adjacent section of western Brazil (Rio Juruá; Teffé and São Paulo de Olivença, south bank of Rio Solimões).

6: Peru (Puerto Bermúdez, Rio Pichis, dept. Junín 6).

**\**Pipra pipra comata* Berlepsch and Stolzmann.<sup>2</sup> SNOWY-CRESTED MANAKIN.**

*Pipra comata* BERLEPSCH and STOLZMANN, Ibis, (6), 6, p. 392, 1894—La Gloria, Chanchamayo and Garita del Sol, Vitoc, dept. Junín (type examined); idem, P.Z.S.Lond., 1896, p. 368—same localities.

*Pipra coracina* (not of SCLATER) TACZANOWSKI, P.Z.S.Lond., 1882, p. 22—Chirimoto (spec. examined); idem, Orn. Pér., 2, p. 342, 1884—Huambo and Chirimoto, Peru.

*Pipra leucocilla* (not of LINNAEUS) SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. t-v, Huambo and Chirimoto, Peru; GOODFELLOW, Ibis, 1901, p. 709—"Baeza, Ecuador," errore.<sup>3</sup>

<sup>1</sup>I am unable to identify a single male from Yurimaguas (Munichis) in the collection of Field Museum. It is too small (wing 61; tail 25) for *P. p. comata*, but differs also from *P. p. microlopha* in more glossy plumage and somewhat fuller, more rounded crest. Apparently similar specimens from Chamicuros are in the Tring Museum.

The subjoined references pertain to this form of doubtful standing.

*Pipra leucocilla* (not of LINNAEUS) SCLATER and SALVIN, P. Z. S. Lond., 1867, p. 751—Xeberos, Yurimaguas, Chyavetas; idem, l.c., 1873, p. 283—part, Xeberos, Yurimaguas, Chyavetas, Chamicuros; TACZANOWSKI, l.c., 1882, p. 22—Yurimaguas; idem, Orn. Pér., 2, p. 341, 1884—part, Xeberos, Yurimaguas, Chyavetas, Chamicuros; SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. c, Chamicuros; HELLMAYR, Ibis, 1906, p. 22—part, Chamicuros, Xeberos, Yurimaguas.

<sup>2</sup>*Pipra pipra comata* BERLEPSCH and STOLZMANN: Very similar to *P. p. pipra*, but tail on average longer; crest of adult male longer, fuller, and on the forehead white down to the base of the feathers.

Two adult males from Garita del Sol, Vitoc, have somewhat longer tails and fuller crests than any other specimen seen. Birds from Huánuco are smaller, the tail especially is shorter, while the crest is not quite so long and always shows, at least on pileum and nape, distinct dusky bases to the feathers. A series from Huayabamba and two from Uchco (50 miles east of Chachapoyas) are intermediate in length of tail, but in other respects are nearer to the Huánuco birds.

Adult males.—Wing: Garita del Sol 69, 70; Huánuco (Chuchurras, Chinchao, Vista Alegre, Huachipa) 64, 65, 65, 67, 67; Huayabamba 65-66; Chirimoto 61; Uchco 67, 69.—Tail: Garita del Sol 35, 36; Huánuco 28, 28, 28½, 29, 31; Huayabamba 33-34; Chirimoto 31; Uchco 31, 32.

Material examined.—Peru: Uchco, east of Chachapoyas 2; Huayabamba 6; Chirimoto 2; Chuchurras, dept. Huánuco 2; Vista Alegre 2; Chinchao 2; Huachipa 2; Garita del Sol, Vitoc, dept. Junín 2.

<sup>3</sup>The specimen (now in the Tring Museum) proves on examination, to be one of O. T. Baron's Huayabamba skins, erroneously labeled as being from Baeza.

*Pipra leucocilla coracina* (not of SCLATER) HELLMAYR, Ibis, 1906, p. 26—part, Guayabamba, Nuevo Loreto, Chirimoto, Huambo, Chuchurras, Peru; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—Cueva Seca, Rio Tocache, Peru.

*Pipra leucocilla comata* HELLMAYR, Ibis 1906, p. 27—Valleys of Vitoc and Chanchamayo, Peru (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 8, 1910—Chanchamayo; CHAPMAN, Bull. U.S.Nat. Mus., 117, p. 99, 1921—Idma, Urubamba Valley, dept. Cuzco, Peru.

Range: Subtropical Zone of Peru, from dept. San Martín south to Junín and (according to Chapman) Cuzco (Urubamba Valley).

6: Peru, dept. Huánuco (Vista Alegre 2, Chinchao 2, Huachipa 2).

### *Pipra pipra cephaleucos* Thunberg. SLATY-BELLIED MANAKIN.

*Pipra cephaleucos* THUNBERG. Mém. Ac. Sci. St. Pétersb., 8, p. 286, 1822—Brazil<sup>1</sup> (=descr. of male in first annual plumage); LÖNNBERG, Ibis, 1903, p. 241—note on type.

*Pipra pipra bahiae* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 117, 1906—Bahia, eastern Brazil.

*Pipra leucocilla* (not of LINNAEUS) BURMEISTER, Syst. Übers. Th. Bras., 2, p. 444, 1856—"Waldgebiet der Küstenstrecke Brasiliens," Nova Friburgo, Rio; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—Pará; LAYARD, Ibis, 1873, p. 384—Pará; SCLATER, Cat. B. Brit. Mus., 14, p. 297, 1888—part, spec. d'-n', Pará, Bahia, "Novo" Friburgo, "São Paulo," Brazil; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Cantagallo, Nova Friburgo; GOELDI, Ibis, 1903, p. 499—Capim River; HELLMAYR, Nov. Zool., 12, p. 294, 1905—Igarapé-assú, Pará; idem, Ibis, 1906, p. 22—part, eastern Brazil (Bahia, Espírito Santo, Nova Friburgo, Rio), Pará, Magoary, Benevides, Capim River; IHERING and IHERING, Cat. Faun. Braz., 1, p. 299, 1907—part, Bahia; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará and Santo Antonio do Prata; idem, Bol. Mus. Goeldi, 8, p. 365, 1914—part, Pará, Mocajutuba, Providencia, Ananindeua, Benevides, Santa Izabel, Peixe-Boi, Santo Antonio do Prata, Rio Tocantins (Baião, Cameté); LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, Bahia; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro. 2, No. 6, p. 63, 1926—Tury-assú, Maranhão.

*Pipra leucocapilla* (not of GMELIN) WIED, Reise Bras., 1, p. 187 (8vo ed., p. 184), 1820—Barra do Jucú, Espírito Santo; idem, Beitr. Naturg. Bras., 3, (1), p. 427, 1830—eastern Brazil.

*Pipra leucocilla leucocilla* HELLMAYR, Nov. Zool., 13, p. 363, 1906—Santo Antonio do Prata, Pará.

*Pipra leucocilla bahiae* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 7, 1910—eastern Brazil; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26,

<sup>1</sup>The type was presented by the Swedish Consul General Westin and, as most of the other species described by Thunberg from his collections are natives of eastern Brazil, there is hardly any doubt that *P. cephaleucos* was based on a young male of the form separated by RIDGWAY as *P. pipra bahiae*.

No. 2, pp. 27, 90, 1912—Peixe-Boi and Ipitanga (Pará localities; crit., coloration of female); BEEBE, *Zoologica* (N.Y.), 2, p. 91, 1916—Utinga, Pará; STONE, *Proc. Ac. N. Sci. Phila.*, 80, p. 167, 1928—Castanhal, Pará.

Range: Eastern Brazil, from Rio de Janeiro and Espirito Santo north to Pará, extending west apparently to the Tocantins.<sup>1</sup>

### Genus **TELEONEMA** Reichenbach.

*Teleonema* REICHENBACH, *Av. Syst. Nat.*, pl. 63, March 1, 1850—type *Pipra filicauda* Spix.

*Cirrhpipra* BONAPARTE, *Consp. Av.*, 1, p. 172, 1850, March or later<sup>2</sup>—type by monotypy *Pipra filicauda* Spix.

### \**Teleonema filicauda* (Spix). CIRRHATE MANAKIN.

*Pipra filicauda* SPIX, *Av. Bras.*, 2, p. 6, pl. 8, figs. 1, 2, 1825—São Paulo de Olivença, Rio Solimões, Brazil (types in Munich Museum examined); WAGLER, *Isis*, 1830, p. 936—Amazon River (descr.); TSCHUDI, *Faun. Peru.*, Aves, p. 413, 1846—prov. Maynas; BURMEISTER, *Syst. Übers. Th. Bras.*, 2, p. 446, 1856 (ex Spix); SCLATER, *P.Z.S.Lond.*, 23, p. 152, 1855—Bogotá; idem, *l.c.*, 1867, p. 579—lower Rio Negro; idem, *l.c.*, 1868, p. 628—Venezuela; PELZELN, *Orn. Bras.*, 2, p. 126, 1868—Manaqueri (Rio Solimões), Rio Negro, Marabitanas, and Rio Amajau (spec. examined); SCLATER, *P.Z.S.Lond.*, 1871, p. 749—"Oyapoc, Cayenne"; idem and SALVIN, *l.c.*, 1873, p. 282—Sarayacu, Upper Ucayali, Río Paranapura, and Río Javarí, Peru; TACZANOWSKI, *Orn. Pér.*, 2, p. 336, 1884—Maynas, Pebas, Iquitos, and Loretoyacu, Peru; ALLEN, *Bull. Amer. Mus. N.H.*, 2, p. 72, 1889—Río Napo, Ecuador; GOODFELLOW, *Ibis*, 1901, p. 708—Archidona, Ecuador.

*Pipra filifera* LESSON, *Rev. Zool.*, 2, p. 40, 1839—Peru.

*Pipra setifera* DESCOURTILZ, *Ornith. Brésil.*, p. 35, pl. 40, fig. 3, circa 1856—"Brésil."

*Cirrhpipra filicauda subpallida* TODD, *Proc. Biol. Soc. Wash.*, 41, p. 112, 1928—Las Quiguas, Carabobo, Venezuela.

*Cirrhpipra filicauda* BONAPARTE, *Consp. Av.*, 1, p. 172, 1850; SCLATER, *P.Z.S.Lond.*, 25, p. 265, 1857—Río Javarri; idem, *l.c.*, 26, p. 71, 1858—Río Napo, Ecuador; idem, *Cat. B. Brit. Mus.*, 14, p. 289, 1888—Barra do Rio Negro, Pebas, Sarayacu, Río Napo, Bogotá, San Esteban; HELLMAYR,

<sup>1</sup>Adult males from the Pará region diverge slightly in the direction of *P. p. pipra* by having the under parts faintly glossed, while birds of eastern Brazil are well characterized by the dull slaty black breast and abdomen. The male in first annual plumage has the crest grayish white.

Material examined.—Bahia 9.—Pará district: Benevides 2, Magoary 1, Santo Antonio do Prata 4, Peixe-Boi 9, Ipitanga 6.

<sup>2</sup>Part 1 (pp. 1-272) of vol. 1 of Bonaparte's "Conspectus Avium" was presented to the Paris Academy on June 24, 1850, but even if issued in March, as claimed by Bonaparte (*Compt. Rend. Ac. Sci.*, 37, p. 423, Sept., 1850), the section of Reichenbach's work, published on the first day of that month, would still seem to have priority.



Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 640, 1906 (note on types); idem in WYTSMAN, Gen. Av., Part 9, p. 9, pl. 2, fig. 3, 1910 (range); idem and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 85, 1912—Campanero, Cumbre Chiquita, and Las Quiguas, state of Carabobo, Venezuela; IHERING and IHERING, Cat. Faun. Braz., 1, p. 297, 1907—Rio Jurúa; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 247, 1916—Maipures, Río Orinoco, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—La Morelia and Florencia, Caquetá, Colombia; idem, l.c., 55, p. 532, 1926—Río Suno, below San José, Río Napo, Ecuador.

*Teleonema filicaudum* CABANIS and HEINE, Mus. Hein., 2, p. 91, 1859—"Porto" Cabello and Peru.

*Cirrhopipra filicauda* BERLEFSCH, Journ. Orn., 37, p. 302, 1889—Yurimaguas, Peru; idem and HARTERT, Nov. Zool., 9, p. 52, 1902—Maipures, Río Orinoco, Venezuela (spec. examined); IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Jurúa; SNETHLAGE, Journ. Orn., 56, p. 12, 1908—Cachoeira, Río Purús; idem, Bol. Mus. Goeldi, 8, p. 362, 1914—Rio Purús.

Range: Western Brazil (from the Rio Jurúa and the Rio Purús north to the Rio Negro and Rio Branco); northeastern Peru (Río Javari; Río Ucayali; Yurimaguas, lower Huallaga; Pebas, Iquitos, Loretoyacu, Río Marañón); eastern Ecuador; eastern Colombia (Caquetá region); Venezuela (Maipures on the Orinoco; Campanero, San Esteban, Cumbre Chiquita, and Las Quiguas, state of Carabobo; mountains near Bucarito, Tocuyo, state of Lara; Orope and Río Catatumbo, state of Zulia).<sup>1</sup>

8: Colombia (Bogotá 2); Brazil (Conceição, Rio Branco 1); Venezuela, state of Zulia (Río Catatumbo 3, Orope 2).

### ***Teleonema heterocerca* (Sclater).<sup>2</sup> SHARP-TAILED MANAKIN.**

*Pipra heterocerca* SCLATER, P.Z.S.Lond., 28, p. 313, 1860—"in ripis fl. Amazonum sup."

<sup>1</sup>Specimens from the Venezuelan coast district (*C. t. subpallida*), while larger on the average, appear to be inseparable from those of Upper Amazonia. I find much individual variation in the color of the tibial feathers and in the depth of the yellow on the anterior under parts.

Material examined.—Brazil: São Paulo de Olivença, Rio Solimões (types) 3; Manaqueri, Rio Solimões 1; Rio Amajau 1; Rio Negro 1; Marabitanas 1; Conceição, Rio Branco 1.—Peru: Yurimaguas 3, Río Tigre 4, Iquitos 1.—Ecuador: Archidona 2, Río Napo 3.—Colombia: "Bogotá" 5.—Venezuela: Maipures 10; Campanero 3, Cumbre Chiquita 4, Las Quiguas 3, San Esteban 2; mountains near Bucarito, Tocuyo 5; Catatumbo River 3, Orope 2.

<sup>2</sup>*Teleonema heterocerca* (SCLATER): Similar to *T. filicauda*, but "the outer rectrices acuminate and produced; the second, third, and succeeding pairs in a less degree than the first; the outer pair exceeding the medial rectrices, which have nearly the ordinary normal form, by nearly half an inch; the crimson color extending lower down the back above, and pervading the breast and upper part of the belly."

This species was based on a single male forwarded by one of Jules Verreaux's correspondents from Pará, which has been lost. No other specimen answering the description having since come to hand, its status remains uncertain.



*Cirrhopipra heterocerca* SCLATER, Cat. B. Brit. Mus., 14, p. 289, 1888—Amazonia.

*Cirrhopipra heterocerca* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 9, 1910—Upper Amazonia.

Range: Upper Amazonia (exact locality unknown).

### Genus **MACHAEROPTERUS** Bonaparte.

*Machaeropterus* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by subs. desig. (GRAY, 1855, p. 147)  
*Pipra strigilata* WIED = *Pipra regulus* HAHN.

#### \**Machaeropterus regulus regulus* (Hahn).<sup>1</sup> STRIPED MANAKIN.

*Pipra regulus* HAHN, Vogel aus Asien, Africa, etc., Lief. 4, pl. 4, figs. 1, 2, 1819—Brazil (types, now in Munich Museum, examined).

*Pipra strigilata* WIED, Reise Bras., 1, p. 187 (8vo ed., p. 184), 1820—Barra do Jucú, Espirito Santo (descr. of male); TEMMINCK, Nouv. Rec. Pl. Col., livr. 9, pl. 54, figs. 1, 2, April, 1821—Brazil (descr. of male and female); WAGLER, Isis, 1830, p. 936—Brazil; WIED, Beitr. Naturg. Bras., 3, (1), p. 430, 1831—Brazil; SWAINSON, Ornith. Draw., Part 2, pl. 25 (♂ ♀), 1834—Brazil; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 445, 1856—Nova Friburgo, Rio.

*Pipra lineata* THUNBERG, Mém. Ac. Sci. St. Pétersb., 8, p. 284, pl. 8, fig. 1 (male), 1822—Brazil (descr. of male and female).

*Machaeropterus regulus* SCLATER, Ibis, 1862, p. 176—southeastern Brazil; PELZELN, Orn. Bras., 2, p. 128, 1868—Rio de Janeiro; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 304, 1888—Bahia, "Novo" Friburgo, "Rio Claro, Goyaz" (errore), Brazil; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 300, 1907—Bahia and Porto Cachoeira, Espirito Santo.

*Machaeropterus strigilatus* ALLEN, Bull. Amer. Mus. N.H., 2, p. 236, 1889—note on Wied's types.

*Machaeropterus regulus regulus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 11, 1910—Bahia to Rio de Janeiro.

Range: Wooded region of southeastern Brazil, from Bahia south to Espirito Santo and Rio de Janeiro.

1: Brazil (Bahia 1).

<sup>1</sup>*Machaeropterus regulus regulus* (HAHN), having white bases to the crown feathers, reminds one of *M. regulus striolatus*, but may be easily distinguished by lacking the red stain on the chest, by much darker, light buffy olive rather than dingy white throat, and much narrower as well as rather duller (less chestnut) streaking of the under parts.

Material examined.—Bahia 10; Rio de Janeiro 3; "Brazil" (the types) 2.

***Machaeropterus regulus striolatus* (Bonaparte). BONAPARTE'S STRIPED MANAKIN.**

*Pipra striolata* BONAPARTE, P.Z.S.Lond., 5, "1837," p. 122, June, 1838—"from that portion of Brazil, bordering on Peru"; GRAY and MITCHELL, Gen. Birds, 1, p. 274, pl. 67, fig. 2 (male), 1846; SCLATER, P.Z.S.Lond., 25, p. 265, 1857—Río Javarri; idem, l.c., 26, p. 72, 1858—Río Napo, Ecuador.

*Machaeropterus striolatus* SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 567—eastern Peru; idem, l.c., 1867, p. 751—Xeberos and Chyavetas, Peru; idem, l.c., 1867, p. 978—Pebas; idem, l.c., 1873, p. 283—Nauta, Xeberos, Chyavetas, Chamicuros, Pebas, and Río Javarri; TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas; idem, Orn. Pér., 2, p. 347, 1884—Peruvian localities; SCLATER, Cat. B. Brit. Mus., 14, p. 304, 188—part, spec. a-g, Río Ucayali, Chamicuros, Pebas, Río Napo; ALLEN, Bull. Amer. Mus. N.H., 2, p. 73, 1889—Río Napo; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Zamora, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—part, Florencia and La Morelia, Caquetá, Colombia.

*Machaeropterus regulus striolatus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 11, 1910—part, Upper Amazonia from Peru to eastern Colombia.

*Machaeropterus striolatus striolatus* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 532, 1926—Zamora, Río Suno, below San José, and Río Napo, Ecuador.

Range: Upper Amazonia, from eastern Colombia (Caquetá region) through eastern Ecuador south to northeastern Peru (dept. Loreto).<sup>1</sup>

**\**Machaeropterus regulus antioQUIAE* Chapman.<sup>2</sup> ANTIOQUIA MANAKIN.**

*Machaeropterus striolatus antioQUIAE* CHAPMAN, Amer. Mus. Novit., 138, p. 5, Oct., 1924—Puerto Valdivia, lower Cauca, Colombia.

*Pipra striolata* (not of BONAPARTE) SCLATER, P.Z.S.Lond., 23, p. 152, 1855—Bogotá.

*Machaeropterus striolatus* SCLATER, Ibis, 1862, p. 176—"Venezuela" and New Granada; idem and SALVIN, P.Z.S.Lond., 1879, p. 517—Medellín, Remedios, and Neche, Colombia; BERLEPSCH, Journ. Orn., 32, p. 305, 1884—Bucaramanga; SCLATER, Cat. B. Brit. Mus., 14, p. 304, 1888—part, spec.

<sup>1</sup>Material examined.—Colombia: La Morelia, Río Bodoquera 1; Cuembi, Río Putumayo 10.—Ecuador: Río Napo 3, Zamora 2, Río Suno 2, below San José 6.—Peru: Río Tigre, near Pebas 11, Iquitos 1.

<sup>2</sup>*Machaeropterus regulus antioQUIAE* CHAPMAN: Closely similar to *M. r. striolatus*, but pileum darker, spectrum red rather than scarlet red, with the bases of the feathers pale gray instead of pure white; back lighter, yellowish citrine rather than warbler green, washed with old gold on lower rump and upper tail coverts; white streaks beneath on average wider. Female indistinguishable from that of *striolatus*. Wing 51-53; tail 21-23.

Material examined.—Colombia: Alto Bonito, Río Sucio 1; La Frijolera, lower Cauca 1; upper Cauca 3; "Bogotá" 20.

h-m, Remedios and Bogotá; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—part, Puerto Valdivia and La Frijolera (lower Cauca), Alto Bonito (Río Sucio), and west of Honda, Colombia.

*Machaeropterus regulus striolatus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 11, 1910—part, Cauca Valley.

Range: Western and central parts of Colombia (Alto Bonito, Río Sucio; Cauca Valley; Bucaramanga; Bogotá).

7: Colombia (Bogotá 7).

\**Machaeropterus pyrocephalus* (Sclater). FIERY-HEADED MANAKIN.

*Pipra pyrocephala* SCLATER, Rev. Mag. Zool., (2), 4, p. 9, 1852—locality unknown, probably eastern Peru (type in Paris Museum examined); idem, Contrib. Ornith., 1852, p. 132, pl. 97, fig. 1 (fig. of type = male).

*Machaeropterus pyrocephalus* SCLATER, Ibis, 1862, p. 176—Río Ucayali and Río Huallaga, eastern Peru; PELZELN, Orn. Bras., 2, p. 128, 1868—Engenho do Gama and São Vicente, Rio Guaporé, Matto Grosso (spec. examined); SCLATER and SALVIN, P.Z.S.Lond., 1878, p. 139—Rioja and Moyobamba, Peru; TACZANOWSKI, Orn. Pér., 2, p. 346, 1884—Moyobamba; SCLATER, Cat. B. Brit. Mus., 14, p. 305, 1888—Engenho do Gama, Matto Grosso, and Río Ucayali; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 54, 1902—La Pricion, Caura, Venezuela (spec. examined); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 11, pl. 3, fig. 5, 1910 (range); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 368, 1914—Boim, Rio Tapajóz; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 249, 1916—La Pricion, Caura, Venezuela.

Range: Eastern Venezuela (La Pricion, Río Caura); northern Brazil (Boim, Rio Tapajóz, state of Pará; Engenho do Gama and São Vicente, Rio Guaporé, western Matto Grosso); and eastern Peru (Río Ucayali, Rioja, Moyobamba, dept. San Martín; Marcapata Valley, dept. Cuzco).<sup>1</sup>

3: Peru (Moyobamba 3).

Genus *ALLOCOTOPTERUS* Ridgway.

*Allocotopterus* RIDGWAY, Proc. Biol. Soc. Wash., 18, p. 209, 1905—type by orig. desig. *Pipra deliciosa* SCLATER.

*Allocotopterus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—emendation.

\**Allocotopterus deliciosus* (Sclater).<sup>2</sup> CLUB-WINGED MANAKIN.

*Pipra deliciosa* SCLATER, P.Z.S.Lond., 28, p. 90, 1860—Nanegal, Ecuador.

<sup>1</sup>I am unable to discover any local variation in this species with the possible exception of the red crown-stripe being somewhat less extensive in males from the Caura Valley.

Material examined.—Peru: Moyobamba 3, Marcapata Valley 1.—Brazil, Matto Grosso: Engenho do Gama 6, São Vicente 3.—Venezuela: La Pricion, Caura 2.

<sup>2</sup>The propriety of separating the species generically from *Machaeropterus* may well be questioned, the principal point of distinction—the peculiar structure of



*Machaeropterus deliciosus* SCLATER, Ibis, 1862, p. 176, pl. 6 (crit.); idem, Cat. B. Brit. Mus., 14, p. 305, 1888—Nanegal, Intac, Sical, "Sarayacu," Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 73, 1889—Nanegal; HARTERT, Nov. Zool., 5, p. 488, 1898—Cachaví, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—Gualea and Intac; GOODFELLOW, Ibis, 1901, p. 709—Gualea, Intac, and Mindo; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 11, pl. 3, fig. 1, 1910—western Ecuador; MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B61, 1911—Pachijal, Esmeraldas; LÖNNBERG, and RENDAHL Ark. Zool., 14, No. 25, p. 75, 1922—Mindo, Gualea.

*Allocopterus deliciosus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 482, 1917—Cocal and Buenavista (Nariño), Colombia.

*Allocotopterus deliciosus* CHAPMAN, l.c., 55, p. 533, 1926—Mindo and Nanegal, Ecuador.

Range: Lower Subtropical Zone of western Ecuador and southwestern Colombia (state of Nariño).

2: Ecuador (unspecified 2).

### Genus **CHLOROPIPO** Cabanis and Heine.<sup>1</sup>

*Chloropipo* CABANIS and HEINE, Mus. Hein., 2, p. 90, note 2, 1859—type by orig. desig. *Chloropipo flavicollis* CABANIS and HEINE = *Pipra flavicapilla* SCLATER.

### **Chloropipo flavicapilla** (Sclater). YELLOW-HEADED MANAKIN.

*Pipra flavicapilla* SCLATER, Rev. Mag. Zool., (2), 4, p. 9, 1852—"Nouvelle Grenade"—Bogotá (type in Paris Museum examined); idem, Contrib. Ornith., 1852, p. 132, pl. 97, fig. 2—New Granada (type figured); idem, P.Z.S.Lond., 23, p. 152, 1855—Bogotá.

*Chloropipo flavicollis* (lapsu) CABANIS and HEINE, Mus. Hein., 2, p. 91, 1859—Colombia (ex SCLATER).

*Chloropipo flavicapilla* SCLATER, Cat. Coll. Amer. Birds, p. 247, 1862—Bogotá; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 516—Medellín, Antioquia; SCLATER, Cat. B. Brit. Mus., 14, p. 286, 1888—Bogotá and Medellín, Colombia; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 12, pl. 1, fig. 4, 1910—Bogotá and Cauca Valley, Colombia; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 483, 1917—San Antonio, Western Andes, Colombia.

Range: Subtropical Zone of Colombia (San Antonio, Primavera, Riolima, Western Andes; Medellín, Central Andes; "Bogotá").<sup>2</sup>

the inner secondaries—being a purely sexual character of the adult male. However, the comparatively much shorter tail and the more operculate nostrils perhaps justify the recognition of the genus.

Material examined.—Twenty specimens from Western Ecuador.

<sup>1</sup>Key to the species; HELLMAYR, Nov. Zool., 13, p. 326, 1906.

<sup>2</sup>Material examined.—Western Andes: Primavera (adult male) 1; Riolima (female) 1.—Medellín, Antioquia (males) 2.—"Bogotá" 7.

Females and immature birds are less brightly colored, the pileum being duller yellow, and the anterior under parts as well as the sides of the head more strongly suffused with greenish olive.



**\*Chloropipo holochlora litae** Hellmayr.<sup>1</sup> WESTERN GREEN MANAKIN.

*Chloropipo holochlora litae* HELLMAYR, Nov. Zool., 13, p. 325, 1906—Lita, prov. Imbabura, Ecuador; idem in WYTSMAN, Gen. Av., Part 9, p. 12, 1910—northwestern Ecuador and southwestern Colombia ("Pasto in the Cauca Valley"); idem, P.Z.S.Lond., 1911, p. 1138—Sipi and Nóvita, Chocó, Colombia (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 483, 1917—Baudó, San José, and Barbacoas, western Colombia; idem, l.c., 55, p. 533, 1926—eastern Panama to northwestern Ecuador; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 178, 1929—Cana, Darién.

*Chloropipo holochlora* SCLATER, Cat. B. Brit. Mus., 14, p. 287, 1888—part, spec. b, "vicinity of Pasto," Colombia (spec. examined); HARTERT, Nov. Zool., 5, p. 488, 1898—Cachaví and Paramba, Ecuador (spec. examined).

Range: Tropical Zone of the Pacific coast from eastern Panama (Río Tuyra) south to northwestern Ecuador (prov. Esmeraldas and Imbabura).

1: Ecuador (Lita, prov. Imbabura 1).

**Chloropipo holochlora holochlora** Sclater. GREEN MANAKIN.

*Chloropipo holochlora* SCLATER, Cat. B. Brit. Mus., 14, p. 287, 1888—part, spec. a,c-f, Bogotá (type), Sarayacu, Ecuador, and Chyavetas, Peru (spec. examined); HELLMAYR, Nov. Zool., 13, p. 325, 1906—Bogotá to northern Peru (crit.).

*Chloropipo* sp. ign. SCLATER and SALVIN, P.Z.S.Lond., 1867, pp. 751, 758—Chyavetas, Peru (spec. examined); idem, l.c., 1873, p. 282—Chyavetas.

*Chloropipo flavicapilla* (not of SCLATER) TACZANOWSKI and BERLEPSCH, P.Z.S.Lond., 1885, p. 93—Mapoto, Ecuador.<sup>2</sup>

*Chloropipo holochlora holochlora* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 12, 1910—Bogotá, eastern Ecuador, and northern Peru (Chyavetas); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 483, 1917—Florencia, Caquetá, and Villavicencio, eastern Colombia; idem, l.c., 55, p. 533, 1926—Zamora, Río Suno, below San José, Ecuador.

Range: Upper Amazonia, from eastern Colombia (Villavicencio; Florencia, Caquetá; Cuembi, Río Putumayo, Nariño) through eastern Ecuador to northern Peru (Chyavetas, dept. Loreto).<sup>3</sup>

<sup>1</sup>*Chloropipo holochlora litae* HELLMAYR: Similar in size to *C. h. holochlora*, but upper parts, throat, chest, and sides light olivaceous green instead of shining grass-green.

Material examined.—N. W. Ecuador (Cachaví, Lita, Paramba, Ventanas, Cachiyacú) 20.—Colombia: Sipi, Río Sipi 2; Nóvita, Río Tamaná 1; "Pasto" 1.

<sup>2</sup>Count Berlepsch's MS. notes, now in my possession, clearly show that the Mapoto specimen is referable to *C. h. holochlora*.

<sup>3</sup>Birds from eastern Ecuador and a single skin from Chyavetas are identical with Colombian specimens.

Material examined.—Colombia: Bogotá (including the type) 3; Cuembi, Río Putumayo 1.—Ecuador: Sarayacu 2, Río Napo 1.—Peru: Chyavetas 1.

**Chloropipo holochlora viridior** *Chapman*.<sup>1</sup> SOUTH PERUVIAN GREEN MANAKIN.

*Chloropipo holochlora viridior* CHAPMAN, Amer. Mus. Novit., 138, p. 5, 1924—La Pampa (type) and Río Távara, southeastern Peru.

*Chloropipo holochlora holochlora* (not of SCLATER) HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 60, 1920—Yahuar Mayo, Carabaya (crit.).

Range: Southeastern Peru, in northern section of dept. Puno (La Pampa, Río Távara, and Yahuar Mayo, northern slope of the Sierra de Carabaya).

**Chloropipo uniformis** *Salvin and Godman*.<sup>2</sup> RORAIMA GREEN MANAKIN.

*Chloropipo uniformis* SALVIN and GODMAN, Ibis, (5), 2, p. 447, 1884—Roraima; SALVIN, l.c., 1885, p. 299—Merumé Mountains and Roraima; idem, l.c., 1886, p. 500—Mount Twék-quay; SCLATER, Cat. B. Brit. Mus., 14, p. 286, 1888—Roraima, Merumé and Twék-quay mountains; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 12, 1910—mountains of British Guiana; CHUBB, Birds Brit. Guiana, 2, p. 250, 1921—Roraima, Merumé, Twék-quay, "Kamarang" [=Caramang] River.

Range: Mountains of the interior of British Guiana.

**Chloropipo unicolor** *Taczanowski*.<sup>3</sup> TACZANOWSKI'S MANAKIN.

<sup>1</sup>*Chloropipo holochlora viridior* CHAPMAN: Very close to *C. h. holochlora*, but upper parts of a fresher, more yellowish (moss) green; throat and chest also rather lighter; abdomen deeper yellow. Wing (two females) 72, 73; tail 46, 47.

Material examined.—Peru: Yahuar Mayo 1, Río Távara 1.

<sup>2</sup>*Chloropipo uniformis* SALVIN and GODMAN: Not unlike *C. holochlora litae*, but larger, and tail notably much longer; axillars and under wing coverts pale yellowish, scarcely tinged with grayish in the middle; throat and chest darker olive green, etc. Wing 80, (female) 77-79; tail 55-58, (female) 53-55.

Material examined.—British Guiana: Roraima 6.

<sup>3</sup>*Chloropipo unicolor* TACZANOWSKI: Adult male glossy black, with wings and under wing coverts dull brownish black; axillars and a tuft of elongated silky feathers on sides of chest snowy white; bill black. Female much like *C. uniformis*, but smaller; upper parts much darker green, inclining to blackish green on pileum; ventral surface duller, more suffused with grayish, and a large tuft of silky white feathers under the wings; bill dark brown, beneath brownish white. Wing 75 (male), 72-75½ (females); tail 51 (male), 49-50½ (females); bill 12-13.

This species is almost certainly generically distinct from *Chloropipo*. Aside from the marked sexual dimorphism and the glossy black coloring of the male, which remind one of *Xenopipo*, it, furthermore, differs from the genotype and allied species by having a much smaller, slenderer bill with strongly ridged culmen, while the elongated plumes on the sides of the chest form another peculiar feature. Unfortunately, no specimen is at present available for reexamination of its structural characters.

Material examined.—Peru, dept. Junín: Amable María, alt. 2000 ft. (the type) 1 (female); Garita del Sol, alt. 5740 ft., 1 (female).—San Martín: Guayabamba [=Huayabamba], alt. 4000 to 5500 ft., (types of *X. subalaris*) 2 (male, female).

*Chloropipo unicolor* TACZANOWSKI, Orn. Pér., 2, p. 335, 1884—Amable María, near Tulumayo River, dept. Junín, Peru (type in Warsaw Museum examined; =female); BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 368—Garita del Sol, Vitoc, Peru (crit.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 12, 1910—Peru.

*Xenopipo subalaris* GODMAN, Bull. Brit. Orn. Cl., 10, p. XXVII, 1899—Guayabamba [=Huayabamba], dept. San Martín (descr. of male and female; types in British Museum examined); HELLMAYR, Nov. Zool., 13, p. 324, 1906—Peru (crit.).

Range: Tropical Zone of Peru, in depts. Junín (Amable María, Garita del Sol) and San Martín (Huayabamba), at altitudes of from 2000 to 5700 feet.

### Genus CERATOPIPRA Bonaparte.

*Ceratopipra* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by monotypy *Pipra cornuta* SPIX.

### *Ceratopipra cornuta* (Spix). CRESTED MANAKIN.

*Pipra cornuta* SPIX, Av. Bras., 2, p. 5, pl. 7, fig. 2, 1825—"in sylvis flum. Amazonum" (type lost, formerly in Munich Museum); WAGLER, Isis, 1830, p. 933 (descr. of type); SCHOMBURGK, Reisen Brit. Guiana, 2, p. 245, 1848—Our Village, Kukenam Valley, dist. Yuruari; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 696, 1848—Roraima; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 444, 1856—Amazon River and British Guiana; BATES, Naturalist on the Amazons, 1, p. 254, 1863—Obidos; PELZELN, Orn. Bras., 2, p. 127, 1868—Rio Marou, Brazil; TACZANOWSKI, Orn. Pér., 2, p. 337, 1884—part, descr. of male and female, British Guiana; SALVIN, Ibis, 1885, p. 299—Roraima.

*Pipra iracunda* SALVIN and GODMAN, Ibis, (5), 2, p. 447, 1884—Roraima, British Guiana (type examined); SALVIN, l.c., 1885, p. 229—Roraima.

*Ceratopipra cornuta* SCLATER, Cat. B. Brit. Mus., 14, p. 288, 1888—Roraima, British Guiana; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 14, pl. 3, fig. 3, 1910—British Guiana and Lower Amazonia; CHUBB, Birds Brit. Guiana, 2, p. 253, 1921—Roraima.

*Ceratopipra iracunda* SCLATER, Cat. B. Brit. Mus., 14, p. 288, pl. 19, 1888—part, spec. a, Roraima; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 14, 1910—Roraima; CHUBB, Birds Brit. Guiana, 2, p. 254, 1921—Roraima.

Range: Eastern Venezuela (El Llagual, Caura River; Kukenam Valley, dist. Yuruari); British Guiana (Roraima); northern Brazil (Rio Marou, tributary of the Rio Negro; Obidos, north bank of lower Amazon).<sup>1</sup>

<sup>1</sup>Two males from the Rio Marou, Brazil, in the Vienna Museum and a female taken by M. A. Carrier, Jr., on January 11, 1910, at El Llagual, Caura, Venezuela (Carnegie Museum, No. 33294) agree with others from British Guiana. An example with only a small yellowish-red chin spot and the rest of the throat black like the belly was described as *P. iracunda*. The type specimen, obtained



Genus **XENOPIPO** Cabanis.

*Xenopipo* CABANIS, Arch. Naturg., 13, (1), p. 235, 1847—type by orig. desig.  
*Xenopipo atronitens* CABANIS.

**\*Xenopipo atronitens** Cabanis. BLACK MANAKIN.

*Xenopipo atronitens* CABANIS, Arch. Naturg., 13, (1), p. 235, 1847—British Guiana; idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 697, 1848—coast forests of British Guiana; PELZELN, Orn. Bras., 2, p. 129, 1868—Forte do São Joaquim (Rio Branco), Rio Içanna (Rio Negro), and Borba, Rio Madeira (spec. examined); SALVIN, Ibis, 1885, p. 299—Merumé Mts. and Mount Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 287, 1888—Merumé Mts. and Demerara (British Guiana), Oyapoc ("Cayenne"), Rio Negro, Rio Içanna, and Borba; BERLEPSCH, Nov. Zool., 15, p. 136, 1908—Oyapock; HELLMAYR, l.c., 17, p. 308, 1910—Borba, Rio Madeira; idem in WYTSMAN, Gen. Av., Part 9, p. 15, pl. 3, fig. 2, 1910 (range); BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—Lelydorp, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 255, 1921—Berbice River, Abary River, Merumé Mts., and Mount Roraima.

Range: British, Dutch, and French Guiana; northern Brazil (Rio Negro; Rio Branco; Borba, Rio Madeira).<sup>1</sup>

1: Brazil (Manáos 1).

Genus **TYRANNEUTES** Sclater and Salvin.<sup>2</sup>

*Tyranneutes* SCLATER and SALVIN, Ibis, (4), 5, p. 268, 1881—type by monotypy  
*Tyranneutes brachyurus* SCLATER and SALVIN = *Pipra virescens* PELZELN.

**\*Tyranneutes virescens** (PelzelN).<sup>3</sup> OLIVE-GREEN MANAKIN.

by the late H. Whitely, Jr., on Mount Roraima, at an altitude of 3500 feet, on June 20, 1883, along with normally-colored males, is certainly but an individual variant of *C. cornuta*.

Material examined.—British Guiana: Roraima 10.—Venezuela: El Llagual, Caura 1.—Brazil: Rio Marou, Rio Negro district 2.

<sup>1</sup>Material examined.—British Guiana: Rupununi River 3, Merumé Mountains 2.—Brazil: Manáos 1; Forte do São Joaquim, Rio Branco 2; Rio Içanna [= Rio Isana] 2; Borba, Rio Madeira 1.

<sup>2</sup>The exceedingly short secondaries and tarsi, together with the delicate toes and relatively large bill, seem to be excellent characters for generic separation. The sexes are alike in coloration and structure.

<sup>3</sup>*Tyranneutes virescens* (PELZELN) is characterized by the large (half-concealed) bright yellow crown patch and by the outermost rectrix being extremely narrowed and shortened, only about half as long as tail, with rigid shaft. Wing 47-51; tail 19-23; bill 9-10.

Birds from British Guiana (*brachyurus*) differ from the type by having less extensive as well as darker, golden yellow rather than lemon yellow, crown patch.

Material examined.—Brazil: Manáos (the type) 1.—British Guiana: Camacusa 8, Bartica Grove 3, Caramang River 2.



*Pipra virescens* PELZELN, Orn. Bras., 2, pp. 128, 187, Sept., 1868—part, descr. of adult male only from Barra do Rio Negro [= Manáos ], Brazil (type in Vienna Museum examined); SALVIN and GODMAN, Ibis, 1883, p. 208 (crit.); SALVIN, l.c., 1885, p. 300—Camacusa, British Guiana; HELLMAYR, Ibis, 1906, p. 42—Manáos, Brazil, and British Guiana (monog.); idem in WYTSMAN, Gen. Av., Part 9, p. 9, 1910—range; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 367, 1914—Obidos and Rio Jamundá (Faro), Brazil; BEEBE, Trop. Wild Life in Brit. Guiana, 1, p. 134, 1917—Bartica Grove; CHUBB, Birds Brit. Guiana, 2, p. 248, 1921—British Guiana (numerous localities).

*Tyranneutes brachyurus* SCLATER and SALVIN, Ibis, (4), 5, p. 269, 1881—Bartica Grove, British Guiana (type examined).

[*Pipra virescens*] Subsp. *brachyura* SCLATER, Cat. B. Brit. Mus., 14, p. 303, 1888—Bartica Grove, Camacusa, and Carimang River, British Guiana (spec. examined).

*Pipra brachyura* BEEBE, Our Search for a Wilderness, pp. 342, 348, 392, 1910—Aremu, British Guiana (habits).

Range: British Guiana, and northern Brazil, north of the Amazon (Obidos; Rio Jamundá, Faro; Manáos).

1: British Guiana (Camacusa 1).

**\**Tyranneutes stolzmanni* (Hellmayr).<sup>1</sup> STOLZMANN'S MANAKIN.**

*Pipra stolzmanni* HELLMAYR, Ibis, (8), 6, p. 44, 1906—Marabitanas, Rio Negro, Brazil (monog., range); idem, Nov. Zool., 14, p. 360, 1907—Paraíso and Borba, Rio Madeira; idem, l.c., 17, p. 308, 1910—Maroins, Rio Machados; idem in WYTSMAN, Gen. Av., Part 9, p. 9, 1910 (range); idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 30, 90, 1912—Peixe-Boi, Pará; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 367, 1914—Pará, Providencia, Ananindeua, Rio Tocantins (Cametá), Cussary, Rio Jamauchim (Tucunaré), and Rio Tapajóz (Boim), Brazil; BOND, Auk, 44, p. 563, 1927—"Patagonia," forty miles east of Pará; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 167, 1928—Castanhal, Pará.

*Pipra virescens* PELZELN, Orn. Bras., 2, pp. 128, 187, 1868—part, descr. of female and young male, Borba, Rio Madeira and Marabitanas, Rio Negro (spec. examined); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 283—Xeberos, Chyavetas, and Chamicuros, Peru (spec. examined); TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas; idem, Orn. Pér., 2, p. 345, 1884—

<sup>1</sup>*Tyranneutes stolzmanni* (HELLMAYR): Similar to *T. virescens*, but without yellow crown patch or with mere traces of pale yellow at the extreme base of a few feathers; outermost rectrix of normal shape, neither narrowed nor abbreviated, and but slightly shorter than the median; subexternal rectrix as a rule from two to four millimeters shorter than the outermost and third pairs.

Material examined.—Venezuela: Nericagua, Orinoco 2; Suapure, Caura River 1.—Colombia: Villavicencio 1, "Bogotá" 15.—Ecuador: Santiago 1, Sarayacu 2, Río Napo 2.—Peru: Yurimaguas 1, Xeberos 2, Chamicuros 2, Chyavetas 1, Puerto Bermúdez 1.—Brazil: Marabitanas, Rio Negro 2; Borba, Rio Madeira 5; Paraíso, Rio Madeira 2; Maroins, Rio Machados 1; Pará 1; Peixe-Boi, near Belém 3.

Yurimaguas; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Santiago, Ecuador (spec. examined); BERLEPSCH and HARTERT, Nov. Zool., 9, p. 53, 1902—Nericagua, Orinoco River, and Suapure, Caura, Venezuela (spec. examined); IHERING and IHERING, Cat. Faun. Braz., 1, p. 300, 1907—Bogotá (range in part).

*Pipra* sp. ign. SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 751—Xeberos and Chyavetas, Peru (spec. examined).

*Pipra virescens* Subsp. typica SCLATER, Cat. B. Brit. Mus., 14, p. 303, 1888—"Rio Negro" [=Marabitanas], Xeberos, Chamicuros, Chyavetas, Sarayacu (Ecuador), and Bogotá.

"*Pipra virescens* an *P. stolzmanni*" (sic) SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará (spec. examined).

*Tyranneutes stolzmanni* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 248, 1916—Nericagua, Orinoco, and Caura River, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 532, 1926—Zamora, Río Suno, and below San José, Ecuador, and Río Távara, Peru.

Range: Amazonian region, from southern Venezuela (Orinoco-Caura basin) and eastern Colombia (Villavicencio) south through eastern Ecuador and northwestern Brazil (Marabitanas, upper Rio Negro) to southeastern Peru (Río Távara, Carabaya), and along the south bank of the Amazon through northern Brazil east to the Pará district.

2: Peru (Puerto Bermúdez, Río Pichis, Ucayali drainage basin, dept. Junín 1); Colombia (Bogotá 1).

### Genus **MASIUS** Bonaparte.

*Masius* BONAPARTE, Consp. Av., 1, p. 175, 1850—type by monotypy *Pipra chrysoptera* Lafresnaye.

*Anticorys* CABANIS and HEINE, Mus. Hein., 2, p. 90, 1859—new name for *Masius* BONAPARTE.

### \**Masius chrysopterus chrysopterus* (Lafresnaye). GOLDEN-WINGED MANAKIN.

*Pipra chrysoptera* LAFRESNAYE, Rev. Zool., 6, p. 97, 1843—Santa Fé de Bogotá; idem, Mag. Zool., (2), 5, pl. 44, 1843—same locality; GRAY and MITCHELL, Gen. Birds, 1, p. 274, pl. 67 (upper figure), 1846.

*Masius chrysoptera* BONAPARTE, Consp. Av., 1, p. 175, 1850—Colombia.

*Masius chrysopterus* SCLATER, P.Z.S.Lond., 23, p. 152, 1855—Bogotá; TACZANOWSKI and BERLEPSCH, l.c., 1885, p. 93—Mapoto, Ecuador; PELZELN, MADARÁSZ and LORENZ, Monog. Pipridae, p. 11, pl. 4, 1887—Bogotá and eastern Ecuador (monog.); BERLEPSCH, Zeits. Ges. Orn., 4, p. 184, 1887—Bogotá; SCLATER, Cat. B. Brit. Mus., 14, p. 291, 1888—Bogotá; GOODFELLOW, Ibis, 1901, p. 708—Baeza, Ecuador (spec. examined); CHAPMAN,

Bull. Amer. Mus. N.H., 36, p. 483, 1917—La Candela (east slope of Central Andes, head of Magdalena Valley), Fusugasugá, and Aguadita, Eastern Andes, Colombia; idem, l.c., 55, p. 534, 1926—Macas, lower Sumaco, San José de Sumaco, Baeza, and below Oyacachi, eastern Ecuador.

*Masius chrysoplerus chrysoplerus* HARTERT and HELLMAYR, Ornith. Monatsber., 11, p. 33, 1903—Eastern Andes of Colombia and Ecuador (crit.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 16, 1910 (range).

Range: Northwestern Venezuela (Guárico, state of Lara); eastern Colombia (Eastern Andes, and east slope of Central Andes at the head of the Magdalena Valley); eastern Ecuador.<sup>1</sup>

5: Colombia (Bogotá 5).

**\**Masius chrysoplerus coronulatus* Sclater. CORONATED MANAKIN.**

*Masius coronulatus* SCLATER, P.Z.S.Lond., 28, p. 91, 1860—Nanegal, Ecuador (type examined); idem, Cat. Coll. Amer. Birds, p. 247, pl. 19, 1862—Nanegal; PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 13, 1887—part, hab. Ecuador only; SCLATER, Cat. B. Brit. Mus., 14, p. 291, 1888—part, spec. a-i, Nanegal, "Sarayacu," Intac, and "Quito," Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 72, 1889—Nanegal; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 14, 1899—Gualea and Intac; GOODFELLOW, Ibis, 1901, p. 708—Canzacota, Gualea, and Intac; MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B60, 1911—"Quito," Gualea; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 75, 1922—Gualea and Nanegal; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 534, 1926—Nanegal, Gualea, Las Piñas, and Alamor.

*Masius chrysoplerus coronulatus* HARTERT and HELLMAYR, Ornith. Monatsber., 11, p. 34, 1903—western Ecuador (crit.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 16, 1910—western Ecuador.

*Masius coronulatus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 484, 1917—part, Gallera (west of Popayán) and Buenavista, Nariño, Colombia.

Range: Western Ecuador and southwestern Colombia (north to Gallera, west of Popayán).<sup>2</sup>

5: Ecuador (Gualea 2, Pachajal 1, Ana María 1, "Quito" 1).

<sup>1</sup>The tips of the crest feathers vary from orange chrome to grenadine red in Bogotá skins. Three males from Baeza (Ecuador) are of the dark-crested type, while a single male from Guárico (Venezuela) agrees with the average from Bogotá in having the tips flame-scarlet.

Material examined.—Colombia: Bogotá 27.—Ecuador: Baeza 4.—Venezuela: Guárico, Lara (Carnegie Museum, No. 36888. ♂ ad., Feb. 10, 1911. M. A. Carriker, Jr.) 1.

<sup>2</sup>Two (out of three) adult males from Gallera (Andes west of Popayán, Cauca) are indistinguishable from topotypes, while the third specimen, like one from Gualea, closely approaches certain individuals of *M. c. bellus*.

Material examined.—Pachajal 1, Ana María 1—Colombia: Gallera 3.—Ecuador: Gualea 6, Nanegal 3, Intac 4, Canzacota 2, "Sarayacu" 2, unspecified 4.



**Masius chrysopterus bellus** *Hartert and Hellmayr*.<sup>1</sup> BEAUTIFUL MANAKIN.

*Masius chrysopterus bellus* HARTERT and HELLMAYR, Ornith. Monatsber., 11, p. 35, 1903—Riolima, Cauca, Colombia; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 16, 1910—western Colombia; idem, P.Z.S.Lond., 1911, p. 1138—Pueblo Rico, San Juan slopes, Colombia.

*Masius coronulatus* (not of SCLATER) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 516—Antioquia [= Medellín] (spec. examined); PELZELN, MADARÁSZ and LORENZ, Monog. Pipr., p. 13, pl. 5, 1887—part, descr. and hab. Medellín, Colombia; SCLATER, Cat. B. Brit. Mus., 14, p. 291, 1888—part, spec. j, Antioquia.

*Masius coronulatus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 484, 1917—part, Las Lomitas, San Antonio, Cocal (Western Andes), and La Frijolera, lower Cauca, Colombia.

Range: Western Andes of Colombia (except the extreme southern section).

Genus **ANTILOPHIA** Reichenbach.

*Metopia* (not of MEIGEN, 1803) SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 491, Feb., 1832—type by orig. desig. *Pipra galeata* LICHTENSTEIN.

*Antilophia* REICHENBACH, Av. Syst. Nat., pl. 63, 1850—type *Pipra galeata* LICHTENSTEIN.

\**Antilophia galeata* (*Lichtenstein*). HELMETED MANAKIN.

*Pipra galeata* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 28, 1823—São Paulo, Brazil (type in Berlin Museum examined); SWAINSON, Orn. Draw., Part 2, pl. 23, 1834 (=adult male).

*Pipra wiedii* LESSON, Traité d'Orn., livr. 4, p. 258, Sept., 1830—no locality given.

*Metopia galeata* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 440, 1856—Lagôa Santa, Minas Geraes; PELZELN, Orn. Bras., 2, p. 129, 1868—Borda do Matto, Irisanga, Paciencia, Rio Paraná, and Rio das Pedras (São Paulo), José Dias and Goyaz (Goyaz), and São Vicente, Matto Grosso (spec. examined); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 318—Lagôa Santa, Sete Lagôas, and Curvelo, Minas Geraes, and Villa Franca,

<sup>1</sup>*Masius chrysopterus bellus* HARTERT and HELLMAYR: Similar to *M. c. coronulatus*, but the thick flattened horny ends of the crest english red (instead of tobacco brown, glossed with golden brown apically). Wing (adult males) 58-60; tail 41-43; bill 7-8.

Seven adult males from the central and northern parts of the Western Andes differ noticeably from a series of Ecuadorian skins. However, one from the Heights of Caldas, Valle, and another from Las Lomitas, Cauca, have the tips of the crest feathers decidedly duller and more tinged with brownish, and can hardly be distinguished from certain dark-crested examples of *coronulatus*.

Material examined.—Medellín, Antioquia 1; Pueblo Rico, San Juan slopes, Chocó 1; Bitaco Valley, Valle 3; La Cumbre, Valle 1; Heights of Caldas, Valle 1; Riolima, Cauca (the type) 1; Las Lomitas, Cauca 1.



northeastern São Paulo; SCLATER, Cat. B. Brit. Mus., 14, p. 290, 1888—part, spec. a-h, Bahia, "Rio," Brazil; ALLEN, Bull. Amer. Mus. N.H., 5, p. 107, 1893—Chapada, Matto Grosso.

*Antilophia galeata* IHERING, Rev. Mus. Paul., 5, p. 298, 1902—Batataes, São Paulo (nest descr.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 298, 1907—Batataes, Franca, and Avanhandava (São Paulo), Chapada and Porto do Faya (Matto Grosso); HELLMAYR, Nov. Zool., 15, p. 55, 1908—Goyaz and Fazenda Esperança, Goyaz; idem in WYTSMAN, Gen. Av., Part 9, p. 17, pl. 2, figs. 5, 6, 1910 (range); REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 76, 1910; p. 166, 1925—Santa Philomena, Piahy (spec. examined).

Range: Table-land of central Brazil, from northern São Paulo and Matto Grosso north through western Minas Geraes, western Bahia, and Goyaz to southern Maranhão and Piahy (Santa Philomena).<sup>1</sup>

7: Brazil (Rio das Velhas, near Lagôa Santa, Minas Geraes 3; Chapada, Matto Grosso 4).

### Genus **CHIROXIPHIA** Cabanis.<sup>2</sup>

*Chiroxiphia* CABANIS, Arch. Naturg., 13, (1), p. 235, 1847—type by subs. desig. (Gray, 1855, p. 55) *Pipra caudata* SHAW.

*Chiroprion* (SCHIFF MS.)<sup>3</sup> BONAPARTE, Ateneo Italiano, 2, No. 11, p. 315 (=Consp. Voluc. Anisod., p. 5), 1854—type by monotypy *Pipra pareola* LINNAEUS.

*Cercophaena* (SCHIFF MS.) BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by monotypy *Pipra linearis* BONAPARTE.

### \**Chiroxiphia linearis* (Bonaparte).<sup>4</sup> LONG-TAILED MANAKIN.

*Pipra linearis* BONAPARTE, P.Z.S.Lond., 5, "1837," p. 113, June, 1838—Mexico; Gould in HINDS, Zool. Voy. Sulphur, Birds, p. 40, pl. 20 (male), 1843—Realejo, Nicaragua.

*Pipra fastuosa* LESSON, Rev. Zool., 5, p. 174, 1842—Realejo, Nicaragua; idem, Echo du Monde Savant, 10, No. 40, p. 947, 1843—Realejo.

*Chiroxiphia linearis* SCLATER, Cat. B. Brit. Mus., 14, p. 309, 1888—Guatemala to Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2,

<sup>1</sup>Forty-six specimens, including a female from Santa Philomena, Piahy, examined.

<sup>2</sup>See W. DEW. MILLER, A Review of the Manakins of the Genus *Chiroxiphia*; Bull. Amer. Mus. Nat. Hist., 24, pp. 331-344, 1908.

<sup>3</sup>Separation of the genus *Chiroprion* seems impracticable (see MILLER, l.c., p. 341).

<sup>4</sup>*C. linearis* and *C. lanceolata* should probably be looked upon as geographic races of *C. pareola* with strongly pronounced characters.

p. 112, 1890—Mexico to Costa Rica; BANGS, Auk, 24, p. 303, 1907—Paso Real and Barranca de Térraba, Costa Rica; MILLER, Bull. Amer. Mus. Nat. Hist., 24, p. 332, 1908—southern Mexico to Costa Rica (crit.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, pl. 2, fig. 9, 1910—southern Mexico to Costa Rica.

*Chiroprion linearis* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 739, 1907—southern Mexico to Costa Rica (monog., full bibliography); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 101, 1907—Mazatenango and Patulul, Guatemala; CARRIKER, Ann. Carnegie Mus., 6, p. 682, 1910—Pacific slope of Costa Rica (habits).

*Chiroprion linearis linearis* BANGS and PETERS, Bull. Mus. Comp. Zool., 68, p. 397, 1928—Chivela and Tapanatepec, Oaxaca.

Range: Southern Mexico (in states of Oaxaca and Chiapas) south through Guatemala, San Salvador, and Nicaragua to the Pacific slope of Costa Rica.<sup>1</sup>

34: Guatemala (Mazatenango 2, near Patulul, Sololá 7); San Salvador (unspecified 1); Nicaragua (San Gerónimo, Chinandega 22); Costa Rica (Bebedero 1, Bolson 1).

**\*Chiroxiphia lanceolata (Wagler). LANCE-TAILED MANAKIN.**

*Pipra lanceolata* WAGLER, Isis, 1830, p. 931—"Guiana sive Cajenna," errore (type in Munich Museum examined).

*Pipra pareolides* D'ORBIGNY and LAFRESNAYE, Rev. Zool., 1, p. 165, 1838—Carthagena, Colombia.

*Pipra pareola* (not of LINNAEUS) HAHN, Vogel aus Asien, etc., Lief. 16, pl. 4 (male), 1829—"Brazil, Cayenne, Cuba," errore; LESSON, Traité d'Orn., livr. 4, p. 257, pl. 51, fig. 1 (male), Sept., 1830—"Brésil."

*Pipra melanocephala* (not of VIEILLOT, 1820) BONAPARTE, P.Z.S.Lond., 5, "1837," p. 113, 1838 (crit.).

*Chiroxiphya melanocephala* SCLATER, P.Z.S.Lond., 23, p. 151, 1855—"Bogotá;" idem, l.c., 24, p. 141, 1856—David, Chiriquí.

*Chiroxiphia lanceolata* CABANIS and HEINE, Mus. Hein., 2, p. 96, 1859—Carthagena, Colombia and Caracas, Venezuela; SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 462—Lion Hill, Panama; SALVIN, l.c., 1867, p. 150—Santa Fé, Veragua and David, Chiriquí; SCLATER and SALVIN, l.c., 1868, p. 168—Pilar, Sucre, Venezuela; idem, l. c., p. 628—Venezuela; SALVIN, l.c., 1870, p. 200—Castillo, Calovevora, Chitrá, Boquete de Chitrá, and Calobre (Veragua), and Mina de Chorchá (Chiriquí); FINSCH, l.c., 1870, p. 574—"Trinidad" (errore); SALVIN and GODMAN, Ibis, 1879, p. 202—Manaure, Santa Marta; SCLATER, Cat. B. Brit. Mus., 14, p. 309, 1888—Veragua, Chiriquí, Panama, Manaure, Pilar and San Esteban (Venezuela),

<sup>1</sup>While this paper was passing through the press, Messrs. BANGS and PETERS (Bull. Mus. Comp. Zool., 68, p. 397, 1928) have pointed out that, according to the length of the middle rectrices, the species may be subdivided into two races: *C. l. linearis* (southern Mexico and Guatemala), and *C. l. fastuosa* (Nicaragua and Costa Rica).

"Trinidad"; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 112, 1890—Panama, Colombia, Venezuela, and "Trinidad"; ROBINSON, Proc. U.S. Nat. Mus., 18, p. 672, 1896—El Valle, Margarita Island (habits, nest and eggs descr.); idem, l.c., p. 684, 1896—La Guayra, Venezuela; PHELPS, Auk, 14, p. 365, 1897—Cumanacoa, Venezuela; BANGS, Proc. Biol. Soc. Wash., 12, p. 137, 1898—Santa Marta; ROBINSON and RICHMOND, Proc. U.S. Nat. Mus., 24, p. 173, 1901—La Guaira and San Julian, Venezuela; BANGS, Auk, 18, p. 365, 1901—Divala and David, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 40, 1902—Boquete, Chiriquí; ALLEN, Bull. Amer. Mus. N.H., 13, p. 155, 1900—Bonda, Minca, and Cacagualito, Santa Marta; idem, l.c., 21, p. 288, 1905—Bonda (nest and eggs descr.); CLARK, Auk, 19, p. 263, 1902—Margarita Island; THAYER and BANGS, Bull. Mus. Comp. Zool., 46, p. 217, 1906—Sabana de Panama; LOWE, Ibis, 1907, p. 563—Margarita Island; MILLER, Bull. Amer. Mus. N.H., 24, p. 334, 1908—Panama, Colombia, and Venezuela (crit.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, pl. 2, fig. 2, pl. 3, fig. 7, 1910 (range); idem and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 86, 1912—Campanero and San Esteban, Venezuela; STONE, Proc. Ac. Nat. Sci. Phila., 65, p. 206, 1913—Cariacuito, Paría Peninsula, Venezuela; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 334, 1922—Fundación, Bonda, Minca, Cacagualito, Mamatoco, and La Tigrera, Santa Marta region; HALLINAN, Auk, 41, p. 319, 1924—Sosa Hill, Río Algarrobo, and Río Velasquez, Panama (nest and eggs descr.).

*Chiroxiphia caudata* (not *Pipra caudata* SHAW) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 296, 1862—line of Panama Railroad.

*Chiroprion lanceolata* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 737, 1907—Panama, Colombia, Venezuela, and "Trinidad" (monog.); CORY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 246, 1909—Margarita Island; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Cerro de Ancón, Panama.

Range: Panama, west to Chiriquí, including Coiba Island; northern Colombia (Sabanilla; Cartagena; Santa Marta region, south to Santander and Bogotá), and northern coast of Venezuela as far east as the Paría Peninsula, state of Sucre.<sup>1</sup>

23: Colombia (El Guayabal, ten miles north of San José de Cúcuta, Santander 3); Venezuela (San Esteban 1; Macuto, Caracas 1; Margarita Island 18).

**\**Chiroxiphia pareola atlantica* Dalmás.<sup>2</sup> TOBAGO MANAKIN.**

<sup>1</sup>Venezuelan specimens average slightly duller, less blackish underneath, but the divergence is insignificant. There is no reliable record of its occurrence in Trinidad, although trade skins are sometimes—no doubt erroneously—labeled as coming from that island.

Material examined.—Panama (Chiriquí and Railroad line) 8.—Colombia: Cartagena 2; Bonda, Santa Marta 5; Bogotá 3; El Guayabal 3.—Venezuela: San Esteban 8; Campanero 2; Macuto, Caracas 1; Cumanacoa, Bermúdez (now Sucre) 6; Guiría, Paría Peninsula 4; Margarita Island 18.

<sup>2</sup>*Chiroxiphia pareola atlantica* DALMÁS: Similar to *C. p. pareola*, but decidedly larger; red crest of adult males fuller and longer; female somewhat lighter, particu-



*Chiroxiphia pareola atlantica* DALMAS, Mém. Soc. Zool. France, 13, p. 139, 1900—Tobago; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, 1910—Tobago.

*Melopia pareola* (not *Pipra pareola* LINNAEUS) JARDINE, Ann. Mag. Nat. Hist., 20, p. 332, 1847—Tobago.

*Chiroxiphia pareola* SCLATER, Cat. B. Brit. Mus., 14, p. 307, 1888—part, spec. g, Tobago; CORY, Auk, 10, p. 220, 1893—Tobago.

*Chiroxiphia atlantica* MILLER, Bull. Amer. Mus. N.H., 24, p. 336, 1908—Tobago (crit.).

Range: Island of Tobago.

40: Tobago Island.

**\**Chiroxiphia pareola pareola* (Linnaeus). BLUE-BACKED MANAKIN.**

*Pipra pareola* LINNAEUS, Syst. Nat., 12th ed., 1, p. 339, 1766—based on BRISSON, EDWARDS, and MARCGRAVE, "Brasilia et Cayana"; DESMAREST, Hist. Nat. Tang., Manak. et Todiers, livr. 4, pl. 50 (adult male), 51, 52 (young males), 1805; livr. 8, pl. 53 (female), 1806—"Brésil et Caienne" (descr. of plumages); WIED, Reise Bras., 1, p. 187 (8vo ed., p. 184), 1820—Barra do Jucú, Espirito Santo; idem, Beitr. Naturg. Bras., 3, (1), p. 418, 1831—Espirito Santo and Mucuri River; SWAINSON, Ornith. Draw., Part 4, pl. 44 (male, female), 1836 (?); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 442, 1856—Bahia to Guyana.

*Manacus superbus* PALLAS, Spicil. Zool., fasc. 6, p. 8, pl. 3 fig. 1, 1769—Surinam.

*Pipra plumata* P. L. S. MÜLLER, Natursyst., Suppl., p. 177, 1776—based on DAUBENTON, Pl. Enl. 303, fig. 2 (=young male), Cayenne.

*Pipra aegithalodes* A. H. LICHTENSTEIN, Cat. Rer. Nat. Rar., p. 52, 1793—based on DAUBENTON, Pl. Enl. 303, fig. 2, Cayenne.

*Chiroxiphia pareola* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 695, 1848—Rupununi River; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—Pará; PELZELN, Orn. Bras., 2, p. 129, 1868—Forte do Rio Branco and Pará; LAYARD, Ibis, 1873, p. 384—Pará; FORBES, l.c., 1881, p. 344—Parahyba; SALVIN, l.c., 1885, p. 300—British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 307, 1888—part, spec. a-f,h,i,l-v, British Guiana, Cayenne, Demerara, Pernambuco, Bahia, "Novo" Friburgo, "Rio Claro, Goyaz," Brazil; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 300, 1907—Bahia and Santarém; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará, Santo Antonio do Prata, Ourém (Rio Guamá), Marajó, Monte Alegre, Maranhão; BERLEPSCH, Nov. Zool., 15, p. 138,

larly more yellowish along the abdominal line. Wing 76-80, (female) 75-78; tail 39-42, (female) 41-44.

This well-marked insular race is peculiar to Tobago. The original description is confused as regards the coloration of the female, and also disfigured by a misprint in the tail measurement which should read 42 instead of 52 mm.

Material examined.—Tobago 70.



1908—Cayenne and Roche-Marie, French Guiana; MILLER, Bull. Amer. Mus. N.H., 24, p. 337, 1908 (crit.); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 369, 1914—Pará, Providencia, Ilha das Onças, Quatipurú, Santo Antonio do Prata, Rio Guamá (Ourém), Rio Tocantins (Mazagão, Cametá, Baião, Arumatheua), Rio Tapajóz (Santarém, (?) Boim), Marajó (Soure, Sant' Anna), Monte Alegre, Serra de Paituna, Maranhão; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, Bahia; CHUBB, Birds Brit. Guiana, 2, p. 256, 1921—Upper Takutú Mts., Mazaruni River, Abary River, Annai; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 100, 1910; p. 166, 1925—Miritiba, Maranhão; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Anil and Tury-assú, Maranhão.

*Chiroxiphia longicauda* (not *Pipra longicauda* VIEILLOT) CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 695, 1848—"British Guiana" (ex SWAINSON MS.), errore; see HELLMAYR, Verh. Orn. Ges. Bay., 14, p. 273, 1920.

*Chiroprion pareola* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 37, 1857—Cayenne.

*Chiroxiphia pareola pareola* HELLMAYR, Nov. Zool., 13, p. 363, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 31, 1907—Obidos; idem in WYTSMAN, Gen. Av., Part 9, p. 18, 1910 (range); idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 31, 90, 1912—Ipitanga, Rio Acará, and Pará localities; BEEBE, Zoologica (N.Y.), 2, p. 92, 1916—Utinga, Pará; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 167, 1928—Rio Capim, Rio Inhangapy, Pará; HELLMAYR, Field Mus. Nat. Hist., Zool. Ser., 12, p. 334, 1929—Maranhão.

*Chiroprion pareola pareola* BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—Paramaribo, Surinam.

Range: French, Dutch, and British Guiana; northern and eastern Brazil, on the north bank of the Amazon west to the Rio Branco, south of the river to the right bank of the Tapajóz, and extending along the east coast as far south as Espírito Santo and Rio de Janeiro.<sup>1</sup>

18: French Guiana (Cayenne 1); Dutch Guiana (vicinity of Paramaribo 1); Brazil, Amazonas (Serra Grande, Rio Branco 1,

<sup>1</sup>The locality "Rio Claro, Goyaz" is no doubt erroneous, and it is also questionable whether the species is of regular occurrence in the vicinity of Rio de Janeiro. It is, however, common along the coast of Bahia and Espírito Santo, specimens from the former state being, so far as I can see, indistinguishable from Guianan ones. South of the lower Amazon, it does not seem to extend beyond the Tapajóz, and I expect that the record from Boim (left bank of this river) will prove to be referable to *C. p. regina*. Like those of the allied races, the females have no red on the crown or any black in the plumage, and the specimens described by Miller were doubtless immature males.

Material examined.—French Guiana (Cayenne, Roche-Marie, Saint Jean du Maroni, etc.) 20.—Dutch Guiana: near Paramaribo 3.—British Guiana: Rupununi River 3, Annai 1.—Brazil: Upper Rio Branco (Serra da Lua, Forte do São Joaquim) 16; Pará (and vicinity) 9; Obidos 1; Maranhão 14; Bahia (City of Bahia, Santo Amaro, etc.) 17.

Serra da Lua, Rio Branco 1), Maranhão (Anil, São Luiz 1, Rosario 2, Tury-assú 4), Bahia (Santo Amaro 5, unspecified 2).

**Chiroxiphia pareola regina Sclater.**<sup>1</sup> QUEEN MANAKIN.

*Chiroxiphia regina* (NATTERER MS.) SCLATER, Ann. Mag. Nat. Hist., (2), 17, p. 469, 1856—Borba, Rio Madeira (type in Vienna Museum examined); idem, P.Z.S.Lond., 25, p. 266, 1857—Rio Javari; idem, Cat. Coll. Amer. Birds, p. 251, pl. 20, 1862—Upper Amazon; PELZELN, Orn. Bras., 2, p. 129, 1868—Borba, Rio Madeira, and Manaqueri, Rio Solimões (spec. examined); SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 283—Rio Javari; TACZANOWSKI, Orn. Pér., 2, p. 348, 1884—Rio Javari; SCLATER, Cat. B. Brit. Mus., 14, p. 308, 1888—Rio Javari; HELLMAYR, Nov. Zool., 14, p. 361, 1907—Humaythá and Paraíso, Rio Madeira (descr. female); idem, l.c., 17, p. 309, 1910—Calama, Rio Madeira, and Maroins, Rio Machados (crit.); idem in WYTSMAN, Gen. Av., Part 9, p. 19, 1910 (range); MILLER, Bull. Amer. Mus. N.H., 24, p. 337, 1908 (crit.); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 369, 1914—Villa Braga, Rio Tapajóz (spec. examined).

Range: Northern Brazil, south of the Amazon, from the left bank of the Rio Tapajóz west to the Javari, on the Peruvian border.

**Chiroxiphia pareola napensis Miller.**<sup>2</sup> NAPO MANAKIN.

*Chiroxiphia napensis* MILLER, Bull. Amer. Mus. N.H., 24, p. 338, pl. 25, 1908—Rio Napo, Ecuador.

*Pipra cornuta* (not of SPIX) SCLATER, P.Z.S.Lond., 26, p. 71, 1858—Rio Napo (spec. in British Museum examined); SCLATER and SALVIN, l.c., 1867, p. 751; idem, l.c., 1873, p. 282—Chyavetas, Peru (spec. examined).

*Chiroxiphia pareola* (not *Pipra pareola* LINNAEUS) SCLATER, Cat. B. Brit. Mus., 14, p. 307, 1888—part, spec. j, k, Sarayacu (spec. examined); ALLEN, Bull. Amer. Mus. N.H., 2, p. 72, 1889—Napo, Ecuador.

<sup>1</sup>*Chiroxiphia pareola regina* SCLATER: Similar to *C. p. napensis*, but vertical crest of adult male lemon or gamboge yellow instead of red; female much darker and more uniform green below than those of *C. p. pareola* and *C. p. atlantica*. Wing 69-74, (female) 67-71; tail 32-36, (female) 34-36; bill 9-10.

Two males from Villa Braga, Rio Tapajóz agree with a series from the Rio Madeira.

Material examined.—Villa Braga, Rio Tapajóz 2.—Rio Madeira, Borba (including the type) 4, Calama 5, Paraíso 2, Humaythá 5; Maroins, Rio Machados 1.—Manaqueri, Rio Solimões 2.

<sup>2</sup>*Chiroxiphia pareola napensis* MILLER: Similar to *C. p. pareola* and of about the same proportions except for the relatively larger bill; but vertical crest of adult male lighter, scarlet vermilion rather than crimson; back much darker azure-blue; legs and feet reddish instead of yellowish. Female not certainly distinguishable from that of *C. p. regina*. Wing (males) 69-72; tail 32-34; bill 10.

A bird, marked "male," in the green plumage, from Loretoyacu, on the north bank of the Marañón near Pebas, agrees with a female from the Rio Napo, while a young male, obtained by E. Bartlett at Chyavetas in August 1866, has the few fresh feathers just appearing in the middle of the crown of a lighter, more orange-vermilion tone than birds from Sarayacu.

Material examined.—Ecuador: Sarayacu 2, Rio Napo 3.—Peru: Loretoyacu 1, Chyavetas 1.

*Ceratopipra iracunda* (not of SALVIN and GODMAN) SCLATER, Cat. B. Brit. Mus., 14, p. 288, 1888—part, spec. b-d, Río Napo, Ecuador, and Chyavetas and Loretoyacu, Peru (spec. examined).

*Chiroxiphia pareola napensis* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, 1910—Río Napo, Sarayacu, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 484, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 534, 1926—Río Napo, Río Suno, and below San José, Ecuador.

Range: Southeastern Colombia (Comisaria del Caquetá); eastern Ecuador; and northeastern Peru (Loretoyacu, near Pebas, Río Marañón; Chyavetas).

***Chiroxiphia pareola boliviana* Allen.<sup>1</sup> BOLIVIAN MANAKIN.**

*Chiroxiphia pareola boliviana* ALLEN, Bull. Amer. Mus. N.H., 2, p. 87, 1889—Yungas, Bolivia; BERLEPSCH and STOLZMANN, Ornith., 13, p. 114, 1906—Huaynapata, Marcapata, Peru; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, 1910—southeastern Peru and Bolivia.

*Chiroxiphia pareola* (not *Pipra pareola* LINNAEUS) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 617—Nairapi and Tilotilo, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 307, 1888—part, spec. w-d', Tilotilo and Nairapi, Bolivia.

*Metopia galeata* (not of LICHTENSTEIN) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 617—Simacu, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 290, 1888—part, spec. i, Simacu (specimen in British Museum examined; = female).

*Chiroxiphia boliviana* MILLER, Bull. Amer. Mus. N.H., 24, p. 339, pl. 25, 1908—Yungas, Santa Cruz (near Apolobamba), and Quebrada Onda, Bolivia (crit.).

Range: Southeastern Peru and Bolivia (Yungas of La Paz, Cochabamba, and Santa Cruz).

**\**Chiroxiphia caudata* (Shaw and Nodder). AZARA'S LONG-TAILED MANAKIN.**

*Pipra caudata* SHAW and NODDER, Natur. Misc., 5, pl. 153, 1793—"in the warmer parts of South America"; THUNBERG, Mém. Ac. Sci. St. Pétersb., 8, p. 284, pl. 7, fig. 1 (adult male), 1822—Brazil; SPIX, Av. Bras., 2, p. 5,

<sup>1</sup>*Chiroxiphia pareola boliviana* ALLEN: Similar to *C. p. pareola*, but with much smaller, slenderer bill, and much longer tail, the rectrices being also decidedly broader; black frontlet wider; vertical crest much more restricted and of a darker crimson color; blue of mantle duller; legs and feet darker, reddish rather than yellowish flesh color, with the feathering extending down to the heel-joint. Wing 69¼-75; tail 46-53; bill 9-10.

Material examined.—Peru: Huaynapata, Marcapata 3.—Bolivia: San Antonio, Yungas of La Paz 2; Simacu 1; Quebrada Onda, Yungas of Cochabamba 7; Santa Cruz 4.



pl. 6, fig. 1 (adult male), 2 (young male), 1825—"Rio Solimões," errore; SWAINSON, Orn. Draw., Part 4, pl. 45 (male, female), 1836 (?)—Brazil; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 441, 1856—Brazil; EULER, Journ. Orn., 15, p. 223, 1867 (nest and eggs descr.).

*Pipra longicauda* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 19, p. 163, 1818—based on AZARA, No. 112, Paraguay; WIED, Beitr. Naturg. Bras., 3, (1), p. 413, 1831—Jiboya, Bahia; KITTLITZ, Kupfert. Naturg. Vogel, Part 2, p. 14, pl. 18, fig. 2 (male), 1832; BONAPARTE, P.Z.S.Lond., 5, "1837," p. 113, 1838 (char.).

*Pipra viridis* THUNBERG, Mém. Ac. Sci. St. Pétersb., 8, p. 285, pl. 8, fig. 3 (female), 1822—Brazil.

*Pipra ignicapilla* WAGLER, Isis, 1830, p. 931—Brazil (type in Berlin Museum examined); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, 1910—Brazil.

*Chiroxiphia caudata* PELZELN, Reise Novara, Zool., 1, Vögel, p. 79, 1865—on the trail to the Corcovado, Rio; idem, Orn. Bras., 2, p. 129, 1868—Registo do Sai, Rio de Janeiro, Ypanemá, and Ytararé (São Paulo), Curitiba (Paraná); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 319—Minas Geraes; HAMILTON, Ibis, 1871, p. 305—São Paulo; PELZELN, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; WHITE, P.Z.S.Lond., 1882, p. 608—San Javier, Misiones; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 138, 1885—Taquara, Arroio Grande, and Linha Pirajá, Rio Grande do Sul; SCLATER and HUDSON, Arg. Orn., 1, p. 161, 1888—banks of the Uruguay, Misiones; SCLATER, Cat. B. Brit. Mus., 14, p. 310, 1888—"Novo" Friburgo, "Rio Claro, Goyaz," Santa Fé (Minas Geraes), São Paulo, Rio, Rio Grande do Sul, Misiones; BOUCARD and BERLEPSCH, The Humming Bird, 2, p. 45, 1892—Porto Real, Rio; SALVADORI, Boll. Mus. Zool. Torino, 10, No. 208, p. 11, 1895—Ajos, Paraguay; IHERING, Anuario Est. Rio Grande do Sul, 16, p. 127, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 208, 1899—Ypiranga, Piquete, Iguapé, and Piracicaba, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, l.c., 5, p. 298, 1902 (nest and eggs descr.); idem, Cat. Faun. Braz., 1, p. 301, 1907—Ypiranga, Campos do Jordão, Mattão, Franca, Itararé, Alto da Serra, Piracicaba, Iguapé, and Ubatuba (São Paulo), Vargem Alegre (Minas Geraes); MILLER, Bull. Amer. Mus. N.H., 24, p. 340, 1908 (crit.); CHUBB, Ibis, 1910, p. 599—Sapucay, Paraguay (plumages descr.); HARTERT and VENTURI, Nov. Zool., 16, p. 206, 1909—Piray, Misiones; DABBENE, Anal. Mus. Nac. Hist. Nat., 18, p. 313, 1910—Misiones; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 19, pl. 2, fig. 1, 1910 (range); CHROSTOWSKI, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 483, 498, 1912—Vera Guarany, Paraná; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 323, 1912—Villa Rica, Paraguay; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná, Paraguay; MÉNÉGAUX, Rev. Franç. d'Orn., No. 115, p. 334, 1918—Villa Lutetia, near San Ignacio, Misiones; PINTO-PEIXOTO, Arch. Mus. Nac. Rio de Janeiro, 24, p. 262, 1924—Monte Serrat, Itatiaya; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 178, 1926—Vermelho, Paraná; HOLT, Bull. Amer. Mus. N. H., 57, p. 309, 1928—Monte Serrat, Itatiaya.



Range: Southeastern Brazil, from southern Bahia and Minas Geraes to Rio Grande do Sul; Paraguay; northeastern Argentina (Misiones).<sup>1</sup>

11: Brazil (Victoria, São Paulo 1; São Paulo 2; Rio das Velhas, near Lagôa Santa, Minas Geraes 4); Argentina, Misiones (Puerto Segundo 2, Río Paranay 2).

### Genus *ILICURA* Reichenbach.

*Ilicura* REICHENBACH, Av. Syst. Nat., pl. 63, 1850—type by subs. desig. (GRAY, 1855) *Pipra militaris* SHAW.

*Hicura* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—emendation.

*Heilicura* SALVIN, Cat. Strickland Coll., p. 320, 1882—emendation.

*Helicura* SCLATER Cat. B. Brit. Mus., 14, p. 311, 1888—emendation.

*Ilicura* BOUCARD and BERLEPSCH, The Humming Bird, 2, p. 45, 1892—emendation..

### \**Ilicura militaris* (Shaw and Nodder). MILITARY MANAKIN.

*Pipra militaris* SHAW and NODDER, Natur. Misc., 20, pl. 849, 1808—South America, we suggest vicinity of Rio de Janeiro; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 441, 1856—Nova Friburgo, Rio; PELZELN, Reise Novara, Zool., 1, Vogel, p. 79, 1865—Corcovado, near Rio de Janeiro.

*Pipra rubrifrons* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 19, p. 161, 1818—"l'Amérique méridionale."<sup>2</sup>

*Pipra oxyura* NORDMANN in ERMANN's Reise, Naturhist. Atlas, p. 12, pl. 9, figs. 1, 2, 1835—Brazil.

*Ilicura militaris* PELZELN, Orn. Bras., 2, p. 129, 1868—Rio de Janeiro and Capivari (Rio), Ypanemá, São Paulo; HAMILTON, Ibis, 1871, p. 305—São Paulo; PELZELN, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 311, 1888—Rio de Janeiro, "Novo" Friburgo, Santa Fé (Minas Geraes), and "Rio Claro, Goyaz" [= São Paulo]; IHERING, Rev. Mus. Paul., 3, p. 208, 1899—Ypiranga and Iguapé, São Paulo; idem, l.c., 4, p. 156, 1900—Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 301, 1907—Ypiranga, Iporanga, Alto da Serra, and Ubatuba, São Paulo; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 20, pl. 2, fig. 4, 1910 (range); idem, Verh.

<sup>1</sup>Birds from Paraguay appear to be identical with others from Brazil. The type of *P. ignicapilla* is nothing but an individual variant with golden yellow instead of scarlet cap.

Twenty-nine specimens from Brazil (Minas Geraes to Rio Grande do Sul), Paraguay, and Misiones examined.

<sup>2</sup>*Pipra melanocephala* (not of P. L. S. MÜLLER, 1776) VIEILLOT (Tabl. Enc. Méth., Orn., 1, livr. 89, p. 389, 1820—"l'île de la Trinité"), according to the description, resembles *I. militaris*, but lacks the red frontal patch, while the outer webs of the secondaries are rufous ("rousses") instead of olive green. No such bird has ever been found on the island of Trinidad or anywhere else, nor does the type exist in the Paris Museum. The name is at any rate preoccupied by MÜLLER.

Orn. Ges. Bay., 12, p. 137, 1915—Braço do Sul, near Victoria, Espírito Santo.

*Chiroxiphia militaris* REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 320—Lagôa Santa and Sete Lagôas, Minas Geraes, and Nova Friburgo, Rio de Janeiro.

*Illicura militaris* BOUCARD and BERLEPSCH, The Humming Bird, 2, p. 45, 1892—Porto Real, Rio.

Range: Southeastern Brazil, from Espírito Santo and Minas Geraes south to Santa Catharina.<sup>1</sup>

1: Brazil (São Paulo 1).

### Genus CORAPIPO Bonaparte.

*Corapipo* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 316 (=Consp. Voluc. Anisod., p. 6), 1854—type by monotypy *Pipra gutturalis* LINNAEUS.

*Coropipo* CABANIS and HEINE, Mus. Hein., 2, p. 94, 1859—emendation.

#### \**Corapipo gutturalis* (Linnaeus). WHITE-THROATED MANAKIN.

*Pipra gutturalis* LINNAEUS, Syst. Nat., 12th ed., 1, p. 340, 1766—based on "Le Manakin à gorge blanche" BRISSON, Ornith., 4, p. 444, pl. 36, fig. 1, 1760—"in America," hab. subst. Cayenne (auct. BERLEPSCH, 1908); DESMAREST, Hist. Nat. Tang., Man. et Todiers, pl. 63 (male), 65 (young male), 1805-6—Cayenne; WAGLER, Isis, 1830, p. 935 (descr.); SALVIN, Ibis, 1885, p. 300—Bartica Grove, Camacusa, Merumé Mts., and Mount Roraima, Brit. Guiana; W. SCLATER, l.c., 1887, p. 318—Maccasseema, Brit. Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 301, 1888—Cayenne, Bartica Grove, Merumé Mts., Camacusa; BERLEPSCH, Nov. Zool., 15, p. 138, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 191, 1910—Surinam.

*Pipra perspicillata*, WAGLER, Isis, 1830, p. 935—based on DESMAREST, Hist. Nat. Tang., Man. et Todiers, pl. 65, Cayenne (= young male).

*Corapipo gutturalis* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 21, 1910—Cayenne and British Guiana; BEEBE, Trop. Wild Life in Brit. Guiana, 1, p. 134, 1917—Bartica Grove; CHUBB, Birds Brit. Guiana, 2, p. 259, 1921—British Guiana (numerous localities).

Range: French, Dutch, and British Guiana.<sup>2</sup>

6: British Guiana (Camacusa 3, Caramang River 3).

#### \**Corapipo leucorrhoea leucorrhoea* (Sclater).<sup>3</sup> COLOMBIAN WHITE-THROATED MANAKIN.

<sup>1</sup>Material examined.—Braço do Sul, near Victoria, Espírito Santo 1; Rio de Janeiro 3; Capivari, near Rio 1; Colonia Alpina, Serra dos Orgãos, Rio 10; Rio Jordão, near Araguary, Minas Geraes 3; Ipanemá, São Paulo 3; São Paulo 1; Blumenau, Santa Catharina 1.

<sup>2</sup>Material examined.—French Guiana: Cayenne 3.—British Guiana: Camacusa 6, Caramang River 3, Roraima 2.

<sup>3</sup>*Corapipo l. leucorrhoea* (SCLATER) is characterized by the outermost primary being reduced to a narrow lanceolate feather, not exceeding 14 to 16 mm. in

*Pipra leucorrhoa* SCLATER, P.Z.S.Lond., 1863, p. 63, pl. 10, 1863—Bogotá (type in British Museum examined); BERLEPSCH, Journ. Orn., 32, p. 305, 1884—Bucaramanga (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 301, 1888—part, spec. p, q, Bogotá; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 111, 1890—part, Colombia.

*Corapipo leucorrhoa leucorrhoa* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 21, 1910—Bogotá, Bucaramanga, and Primavera, Colombia; RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 754, 1907—Colombia (char.).

*Corapipo leucorrhoa* CHAPMAN, Bull. Amer. Mus. N. H., 36, p. 484, 1917—El Consuelo and Honda, Magdalena Valley, and San Antonio, Western Andes, Colombia.

Range: Tropical and lower Subtropical Zone of Colombia (Bucaramanga, El Consuelo, and Honda, Magdalena Valley; Bogotá; San Antonio, near Pavas, La María, Dagua Valley, and Primavera, Western Andes, dept. Cauca).

1: Colombia (Bogotá 1).

**\*Corapipo leucorrhoa altera Hellmayr.<sup>1</sup> COSTA RICAN WHITE-THROATED MANAKIN.**

*Corapipo leucorrhoa altera* HELLMAYR, Bull. Brit. Orn. Cl., 16, p. 84, 1906—part, type from Carrillo, eastern Costa Rica; RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 755, 1907—Panama to eastern Nicaragua, excl. Guaitil (monogr., full bibliography); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 21, pl. 1, fig. 2, 1910—part, Panama, Veragua, Costa Rica, and Nicaragua; idem, Bull. Brit. Orn. Cl., 25, p. 87, 1910—eastern Costa Rica; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 457, 1928—Boquete Trail, Panama.

*Pipra leucorrhoa* (not of SCLATER) SALVIN, P.Z.S.Lond., 1867, p. 149—Santa Fé de Veragua and Tucurriquí, Costa Rica (descr. female); idem, l.c., 1870, p. 200—part, Calovevora and Laguna de Castillo, Veragua; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 116, 1868—part, Cervantes and

length, while the fifth and sixth primaries form the tip of the wing. I notice some variation in the proportions of the third to the sixth primaries in different individuals, but the series examined is not large enough to ascertain whether this is of geographical significance.

Material examined.—Bogotá 4; Bucaramanga 1; Primavera, Cauca 2; near Pavas, Western Andes 4; La María, Dagua Valley 1.

<sup>1</sup>*Corapipo leucorrhoa altera* HELLMAYR: Male similar to *C. l. leucorrhoa* in having the posterior border of the white throat patch nearly straight; but under parts duller, less glossed with steel-blue; wing-formula very different, the fourth primary being longest, and the outermost about half as long as wing, neither conspicuously narrowed nor lanceolate. Wing of adult males 58½–60 (eastern Costa Rica), 60 (Veraguas), 57–59 (Mount Sapo, Darién); tail 31–33 (Costa Rica), 32 (Veraguas), 27–30 (Darién); bill 8–8½.

Specimens from eastern Panama and Chocó, Colombia are slightly smaller than a topotypical series.

Material examined.—Eastern Costa Rica (Carrillo, Cariblanco de Sarapiquí, etc.) 12.—Veraguas 1.—Panama: Mount Sapo, Darién 4.



Angostura, Costa Rica; SALVIN, Ibis, 1872, pp. 313, 318—Chontales, Nicaragua; BOUCARD, P.Z.S.Lond., 1878, p. 66—Cervantes and Juan Viñas, Costa Rica; ZELEDÓN, An. Mus. Nac. C.R., 1, p. 118, 1887—part, Naranjo de Cartago and Chirripo, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 301, 1888—part, spec. a-m, Chontales, Nicaragua; Angostura, Tucuriquí; Santa Fé, Calovevora, Chitrá, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 111, 1890—part, Chontales, Tucuriquí, Angostura, Laguna de Castillo, Boquete de Chitrá, Calvevora, Santa Fé; CHERRIE, Proc. U.S. Nat. Mus., 14, p. 536, 1891—Costa Rica (descr. of female and young male); UNDERWOOD, Ibis, 1896, p. 439—Miravelles, Costa Rica.

*Corapipo altera altera* CARRIKER, Ann. Carnegie Mus., 6, p. 678, 1910—Caribbean slope and extreme northwestern Pacific slope of Costa Rica (crit.); CHAPMAN, Bull. Amer. Mus. N. H., 36, p. 485, 1917—Baudó Mts., Chocó, Colombia; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 215, 1922—Mount Sapo, Darién (spec. examined); GRISCOM, l.c., 69, p. 179, 1929—Cana, Darién.

Range: Eastern Nicaragua; Caribbean slope and extreme northwestern Pacific slope of Costa Rica; Veraguas<sup>1</sup>; Panama; and coast district of northwestern Colombia (Baudó Range, Chocó).

1: Panama (Veraguas 1).

**\**Corapipo leucorrhoa heteroleuca* Hellmayr.<sup>2</sup> PACIFIC WHITE-THROATED MANAKIN.**

*Corapipo leucorrhoa heteroleuca* HELLMAYR, Bull. Brit. Orn. Cl., 25, p. 87, March, 1910—Boquete, Chiriquí.

*Corapipo altera albibarbis* CARRIKER, Ann. Carnegie Mus., 6, p. 679, August, 1910—Guaitil, southwestern Costa Rica (crit., range).

*Pipra leucorrhoa* (not of SCLATER) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 116, 1868—part, Guaitil, Costa Rica; SALVIN, P.Z.S.Lond., 1870, p. 200—part, Volcán de Chiriquí and Bugaba; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—part, Pozo Azul de Pirris and Guaitil, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 301, 1888—part, spec. n.o, Bugaba and southern slope of Volcán de Chiriquí; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 111, 1890—part, Guaitil (Costa Rica), Chiriquí and Bugaba (Panama); CHERRIE, Expl. Zool. en Costa Rica, 1890—91, p. 36, 1893—Palmar and Boruca; BANGS, Proc. New Engl. Zool. Cl., 3, p. 40, 1902—Boquete and Volcán de Chiriquí, Panama.

*Corapipo leucorrhoa altera* (not of HELLMAYR) RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 755, 1907—part, Guaitil, Costa Rica; BANGS, Auk,

<sup>1</sup>Mr. L. Griscom (in litt.) states that this form is the only one found in Veraguas, ranging as far west as Cerro Flores in extreme eastern Chiriquí.

<sup>2</sup>*Corapipo leucorrhoa heteroleuca* HELLMAYR: Agreeing with *C. l. altera* in shape of wing, but adult male easily distinguished by the different form of the white throat patch, the posterior border of which is deeply indented medially towards the chin, giving the impression of an inverted V. Wing 58-62; tail 31-34; bill 8-9.

Material examined.—Southwestern Costa Rica (Boruca, Guayabo, Pozo Azul de Pirris, etc.) 14.—Panama: Boquete 4, Chiriquí 5.



24, p. 303, 1907—Boruca and Paso Real, Costa Rica; FERRY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 269, 1910—Guayabo, Costa Rica.

Range: Southwestern Costa Rica and adjacent section of Panama (Bugaba, Boquete, Volcán de Chiriquí, western Chiriquí).

7: Costa Rica (Boruca 3, Guayabo 1); Panama (Boquete 1, Chiriquí 2).

### Genus **MANACUS** Brisson.

*Manacus* BRISSON, Orn., 4, p. 442, 1760—type by tautonymy "*Manacus*"  
BRISSON = *Pipra manacus* LINNAEUS.

*Chiromachaeris* CABANIS, Arch. Naturg., 13, (1), p. 235, 1847—type by monotypy *Pipra manacus* LINNAEUS.

### \**Manacus manacus trinitatis* (Hartert).<sup>1</sup> TRINIDAD MANAKIN.

*Chiromachaeris manacus trinitatis* HARTERT, Bull. Brit. Orn. Cl., 29, p. 63, 1912—Chaguaramas, Trinidad.

*Pipra gutturalis* (not of LINNAEUS) LÉOTAUD, Ois. Trinidad, p. 253, 1866—Trinidad.

*Chiromachaeris manacus* (not *Pipra manacus* LINNAEUS) TAYLOR, Ibis, 1864, p. 87—Trinidad; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. f-h, Trinidad.

*Manacus manacus* CHAPMAN, Bull. Amer. Mus. N.H., 6, p. 45, 1894—Princes-town, Trinidad; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 190, 1906—Aripo, Trinidad.

*Manacus manacus manacus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 34, 1899—part, Trinidad; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 364, 1908—Carenage and Aripo, Trinidad; (?) BEEBE, Zoologica (N.Y.), 1, p. 94, 1909—north of Guanoco, Orinoco delta, Venezuela.

*Chiromachaeris manacus manacus* HELLMAYR, Nov. Zool., 13, p. 27, 1906—Caparo, Laventille, Valencia, and Chaguaramas, Trinidad; idem in WYTSMAN, Gen. Av., Part 9, p. 22, 1910—part, Trinidad.

Range: Island of Trinidad, and possibly the delta of the Orinoco in northeastern Venezuela.

3: Trinidad (Port of Spain 1, unspecified 2).

<sup>1</sup>*Manacus manacus trinitatis* (HARTERT): Very similar to *M. m. manacus*, but averaging larger, with heavier (though not always longer) bill, and under parts whiter, only the flanks, thighs, and under tail coverts being pale gray, the latter more extensively tipped with white; female distinguishable only by larger bill and slightly greater dimensions. Wing (adult male) 54-55, rarely 52 or 53; tail 32-35, once 31; bill 11-12.

This form I have seen only from Trinidad where it is widely distributed. It is, however, possible that birds from the Orinoco delta belong likewise to this race. Unfortunately, the specimens secured by Beebe at Guanoco cannot be found.

Material examined.—Trinidad: Caparo 24, Laventille 2, Chaguaramas 1, Aripo 3, Port of Spain 1.

**\**Manacus manacus manacus* (Linnaeus). WHITE-BEARDED MAN-AKIN.**

*Pipra manacus* LINNAEUS, Syst. Nat., 12th ed., 1, p. 340, 1766—based on EDWARDS (Glean. Nat. Hist., 1, p. 107, pl. 260, sup. fig., Surinam) and BRISSON (Orn., 4, p. 442, 1760, Cayenne, excl. syn. MARCGRAVE and hab. "Brasilia"), we accept Surinam as type locality; SCHOMBURGK, Reisen Brit. Guiana, 2, p. 490, 1848—Sand hills of the Demerara River.

*Pipra melanocephala* P. L. S. MÜLLER, Natursyst., Suppl., p. 177, 1776—evidently based on DAUBENTON, Pl. Enl. 303, fig. 1, Cayenne.

*Manacus edwardsi* BONAPARTE, Consp. Av., 1, p. 171, 1850—based on EDWARDS, pl. 260, sup. fig., Surinam, and DAUBENTON, Pl. Enl. 302, fig. 1.<sup>1</sup>

*Manacus gutturosus* (not *Pipra gutturosa* DESMAREST) BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 37, 1857—Cayenne.

*Chiromachaeris manacus* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 696, 1848—Demerara River; SCLATER, Cat. Coll. Amer. Birds, p. 252, 1862—Cayenne; PELZELN, Orn. Bras., 2, p. 130, 1868—part, Barra do Rio Negro [= Manáos] (spec. examined); SALVIN, Ibis, 1885, p. 301—Bartica Grove and Camacusa, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. a-e, British Guiana, Cayenne, Bartica Grove, and Camacusa; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Saint-Georges d'Oyapock, French Guiana; BERLEPSCH, Nov. Zool., 15, pp. 138, 318, 1908—Cayenne, Roche-Marie, Ipousin, R. Approuague, Saint-Georges d'Oyapock, Maroni, French Guiana; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 369, 1914—Monte Alegre, Obidos, and Rio Jamundá (Faro), Brazil; CHUBB, Birds Brit. Guiana, 2, p. 261, 1921—numerous localities.

*Chiromachaeris gutturosa(us)* (errore) Goeldi, Ibis, 1897, p. 153—Counany, Brazil; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Maroni, French Guiana.

*Manacus manacus manacus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 34, 1899—part, Guianas; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—Paramaribo, Lelydorp, Rijdsdijkweg, Surinam.

*Chiromachaeris manacus manacus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 22, 1910—part, Guianas and northern Brazil; BEEBE, Trop. Wild Life, 1, p. 134, 1917—Bartica Grove.

Range: French, Dutch, and British Guiana; northern Brazil, south to the north bank of the lower Amazon, west to Manáos.<sup>2</sup>

2: British Guiana (Hyde Park, Demerara River 2).

<sup>1</sup>Daubenton's "Manakin du Brésil" (pl. 302, fig. 1) is clearly a copy of Edwards's "Black-capped Manakin" (pl. 260, upper figure), with a wrongly assigned habitat.

<sup>2</sup>Birds from the north bank of the Amazon (Monte Alegre, Manáos) agree perfectly with a series from French and Dutch Guiana. Adult males from various localities in British Guiana appear to me likewise indistinguishable, showing the characteristic short wing tip, the grayish suffusion on breast and belly, as well as the black mottling in the white nuchal collar and postocular region.

Material examined.—French Guiana: Cayenne 7, Saint Jean du Maroni 1, Roche-Marie 10, Approuague 3.—Dutch Guiana: near Paramaribo 5, "Surinam" 3.—British Guiana: Bartica Grove 2, Mazaruni River 1, Demerara River 5.—Brazil: Monte Alegre 1, Manáos 2.

**\**Manacus manacus purus* Bangs.<sup>1</sup> LOWER-AMAZONIAN MANAKIN.**

*Manacus manacus purus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 36, 1899—Santarém, Rio Tapajóz, Brazil; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 31, 90, 1912—Marco da Legua, Pará (Pará localities); REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 166, 1925—Miritiba, Maranhão; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Rio Guamá, Rio Muraiteua, Pará.

*Chiromachaeris manacus* (not *Pipra manacus* LINNAEUS) SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—Pará; PELZELN, Orn. Bras., 2, p. 130, 1868—part, Borba, Rio Madeira (spec. examined); LAYARD, Ibis, 1873, p. 384—Pará; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. j, k, Pará; Goeldi, Ibis, 1903, p. 499—Capim River; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará, Santo Antonio, Capim River.

*Manacus manacus* RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Diamantina, near Santarém; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 100, 1910—Maranhão.

*Chiromachaeris manacus purus* HELLMAYR, Nov. Zool., 13, p. 363, 1906—Santo Antonio do Prata, Marco da Legua, and Magoary, Pará (crit.); idem, l.c., 17, p. 310, 1910—range in part, Borba to Maranhão; idem in WYTSMAN, Gen. Av., Part 9, p. 23, pl. 1, fig. 1, 1910—part, Maranhão to lower Madeira; IHERING, Cat. Faun. Braz., 1, p. 302, 1907—Santarém; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 370, 1914—Pará, Providencia, Ananindeua, Benevides, Santa Izabel, Quati-purú, Santo Antonio do Prata, Rio Capim (Araproaga), Rio Tocantins (Cametá, Baião, Arumatheua), Tamacury, and Rio Tapajóz (Boim); BEEBE, Zoologica (N.Y.), 2, p. 92, 1916—Utinga, Pará; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Tury-assú, Maranhão; HELLMAYR, Field Mus. Nat. Hist., Zool. Ser., 12, p. 335, 1929—Maranhão.

*Chiromachaeris gutturosus* (not *Pipra gutturosa* DESMAREST) IHERING, Cat. Faun. Braz., 1, p. 302, 1907—part, Maiobá, Maranhão.

Range: Northern Brazil, south of the Amazon, from northern Maranhão west to the lower Rio Madeira (Borba).<sup>2</sup>

9: Brazil, Pará (Utinga 2); Maranhão (Tury-assú 4, Rosario 3).

<sup>1</sup>*Manacus manacus purus* BANGS: Differs in the male sex from *M. m. manacus* by reason of much longer wing tip (8 to 12 instead of 4 to 6½ mm.); wider white nuchal band, without any black mottling; less black on the back; more extensive slate gray uropygial area; pure white middle of the abdomen and under tail coverts.

Birds from Maranhão are identical with those from the Pará region. Three adult males from Borba, lower Rio Madeira, show a certain tendency towards the characters of *M. m. subpurus* on the under parts, but by their slightly shorter wing tip (7 to 8 mm.) and grayish-tinged under tail coverts they diverge in the direction of *M. m. manacus*.

Material examined.—Maranhão: Miritiba 7, Tury-assú 4, Rosario 3.—Pará: Pará 5, Marco da Legua 3, Magoary (E.F.B.) 2, Santo Antonio do Prata 9.—Amazonas: Borba, lower Madeira 3.

<sup>2</sup>While this was passing through the press, Mr. TODD (Proc. Biol. Soc. Wash., 41, p. 111, 1928) has separated the birds of the Pará region (Benevides) as *M. m. purissimus*, basing the distinction on the more extensively white upper back and



***Manacus manacus subpurus* Cherrie and Reichenberger.<sup>1</sup> MATTO GROSSO MANAKIN.**

*Manacus manacus subpurus* CHERRIE and REICHENBERGER, Amer. Mus. Novit., 58, p. 4, 1923—Tapirapoan, Siputuba River, Matto Grosso (type examined).

*Chiromachaeris manacus* (not *Pipra manacus* LINNAEUS) PELZELN, Orn. Bras., 2, p. 130, 1868—part, Engenho do Gama and São Vicente, Matto Grosso (spec. examined).

*Chiromachaeris manacus purus* (not of BANGS) HELLMAYR, Nov. Zool., 17, p. 309, 1910—part, Calama, Jamarysinho and Santa Izabel, Rio Preto, Rio Madeira (crit.); idem in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—part, Rio Madeira to Matto Grosso.

Range: Central Brazil, in northern Matto Grosso, extending along the Rio Madeira as far north as the junction of the Rio Machados.

***Manacus manacus interior* Chapman.<sup>2</sup> UPPER AMAZONIAN MANAKIN.**

*Manacus manacus interior* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 624, 1914—Villavicencio, eastern Colombia (type) and Maripa, lower Caura, Venezuela (spec. examined); idem, l.c., 36, p. 486, 1917—Villavicencio; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 249, 1916—Maipures, Río Orinoco, and Maripa, Caura, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 535, 1926—Zamora, Río Suno, and below San José, Ecuador.

*Chiromachaeris gutturosa* (not *Pipra gutturosa* DESMAREST) SCLATER, P.Z.S. Lond., 22, p. 114, 1854—Quijos, Ecuador.

correspondingly reduced black area above. The specimens from Borba, mentioned above, no doubt belong to *M. m. purus*, as defined by Mr. TODD. The range of the latter form would thus seem to be restricted to western Lower Amazonia, extending from the Tapajóz to the lower Rio Madeira, while birds from east of the Tocantins should be called *M. m. purissimus*.

<sup>1</sup>*Manacus manacus subpurus* CHERRIE and REICHENBERGER: Closely similar to *M. m. purus*, but black dorsal area much more extensive; gray uropygial zone consequently more restricted, also darker in tone; flanks more strongly washed with darker gray. Wing (adult male) 51-53; tail 29-31; bill 9-9½.

Material examined.—Matto Grosso: Tapirapoan, Siputuba River (the type) 1; Mutúm Cavallo 1; Engenho do Gama, Rio Guaporé 2; São Vicente 1.—Rio Madeira: Calama 1, Santa Izabel 3, Jamarysinho 1.

<sup>2</sup>*Manacus manacus interior* CHAPMAN: In the male sex somewhat intermediate between *M. m. manacus* and *M. m. abditivus*, combining, as it does, the loose, soft "chin-beard" and immaculate white nuchal collar of the former with the gray abdomen of the latter; differing, however, from both by reason of somewhat larger size and much longer wing tip (9 to 11, instead of 4 to 6½ mm.), while the belly is even more uniform and darker gray than in *abditivus*. Wing (male) 52-55; tail 31-34.

Birds from eastern Colombia, the Napo region, and a single male from Iquitos, Peru, agree very well together. Two from the Caura Valley are likewise wholly typical of this race, while one from Barcellos, Rio Negro, by its less grayish abdomen and slightly mottled postocular region, forms the transition to *M. m. manacus*.

Material examined.—Colombia: Villavicencio (including the type) 2, "Bogotá" 9.—Ecuador: Río Napo 4, Gualaquiza 1.—Peru: Iquitos 1.—Venezuela, Caura Valley: La Unión 1, Maripa 2.—Brazil: Barcellos, Rio Negro 1.

*Manacus edwardsi* (not of BONAPARTE) SCLATER, P.Z.S.Lond., 23, p. 151, 1855—Bogotá.

*Chiromachaeris manacus* (not *Pipra manacus* LINNAEUS) PELZELN, Orn. Bras., 2, p. 130, 1868—part, Barcellos, Rio Negro (spec. examined); SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 567—Peru; idem, l.c., 1867, p. 751—Chyavetas; p. 978—Pebas; idem, l.c., 1873, p. 283—Nauta, Chyavetas, Pebas, Peru; TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas; idem, Orn. Pér., 2, p. 349, 1884—Nauta, Pebas, Chyavetas, Balza-Puerto, Yurimaguas, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. i,l,q,r, Pebas, Sarayacu, "Bogotá"; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—part, Gualaquiza and Zamora, Ecuador; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 53, 1902—Maipures, Río Orinoco, and La Unión, Caura, Venezuela (spec. examined).

*Manacus manacus* ALLEN, Bull. Amer. Mus. N.H., 2, p. 73, 1889—Río Napo; MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B61, 1911—part, eastern Ecuador.

*Manacus manacus manacus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 34, 1899—part, Pebas, Peru.

*Chiromachaeris manacus manacus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 22, 1910—part, Orinoco region to eastern Ecuador and south to Pebas, Peru.

Range: Upper Amazonia, from the eastern slope of the Andes in Colombia through eastern Ecuador to northern Peru, east to the Caura Valley, Venezuela, and the upper stretches of the Rio Negro, northwestern Brazil (Barcellos).

**\**Manacus manacus abditivus* Bangs.<sup>1</sup> SANTA MARTA MANAKIN.**

*Manacus manacus abditivus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 35, 1899—Santa Marta, Colombia; ALLEN, Bull. Amer. Mus. N.H., 13, p. 155, 1900—Bonda, Minca, Cacagualito, Donama [= Don Amo], Masinga Vieja, and Jordan, Santa Marta region; idem, l.c., 21, p. 287, 1905—Don Diego (nest and eggs descr.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 485, 1917—Puerto Valdivia, Medellín, and Malena, lower Magdalena, Colombia; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 336, 1922—Minca, Buritaca, Don Diego, Mamatoco, La Tigrera, Agua Dulce, Las Vegas, Loma Larga, Chirua, San Miguel, La Concepción, and Fundación, Santa Marta region.

*Chiromachaeris manacus* (not *Pipra manacus* LINNAEUS) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 517—Remedios and Neche; SALVIN and GODMAN,

<sup>1</sup>*Manacus manacus abditivus* BANGS: Nearest to *M. m. manacus* and wing tip hardly longer (6 to 8 mm.), but easily distinguished by more elongated as well as more rigid "chin-beard," darker gray abdomen, and by lacking the black mottling on postocular region and nuchal collar. Wing (adult male) 51-54; tail 28-32.

Two males from Remedios have the white areas of the plumage very faintly tinged with yellowish, suggesting intergradation with *M. m. flaveolus*, the form found in the upper Magdalena Valley.

Material examined.—Colombia, Santa Marta region: Masinga Vieja 1, Don Amo 1, Minca 5, Bonda 3; Remedios, lower Cauca 2.

Ibis, 1880, p. 169—Minca, Santa Marta region; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. s-u, Remedios, Minca.

*Manacus manacus* BANGS, Proc. Biol. Soc. Wash., 12, p. 137, 1898—Santa Marta.

*Chiromachaeris manacus abditivus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—part, Santa Marta.

Range: Northern Colombia, from the Santa Marta region south to the lower Cauca (Puerto Valdivia, Medellín) and lower Magdalena River (Malena).

1: Colombia (Santa Marta 1).

**\**Manacus manacus flaveolus* Cassin.<sup>1</sup> YELLOWISH MANAKIN.**

*Manacus flaveolus* CASSIN, Proc. Ac. Nat. Sci. Philad., 1851, p. 349—Bogotá; SCLATER, P.Z.S.Lond., 23, p. 151, 1855—Bogotá.

*Pipra flavitincta* SCLATER, P.Z.S.Lond., 20, "1852," p. 34, pl. 48, pub. Dec., 1853—Santa Fé de Bogotá.

*Chiromachaeris flaveola* BERLEPSCH, Journ. Orn., 32, p. 305, 1884—Bucaramanga (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 315, 1888—Bogotá, Bucaramanga; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—Bogotá and Bucaramanga.

*Manacus manacus abditivus* (not of BANGS) STONE, Proc. Acad. Nat. Sci. Philad., 1899, p. 306—Honda.

*Manacus manacus flaveolus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 486, 1917—Honda and Chicoral, upper Magdalena Valley (spec. examined).

Range: Arid Tropical Zone of the upper Magdalena Valley, in eastern Colombia.

2: Colombia (Bogotá 2).

***Manacus manacus bangsi* Chapman.<sup>2</sup> BANGS'S MANAKIN.**

<sup>1</sup>*Manacus manacus flaveolus* CASSIN: Nearest to *M. m. abditivus*, but the white portions of the plumage tinged with pale yellowish; rump slate olive instead of slate gray; abdomen olive gray. Wing (adult male) 49-53; tail 27-31.

The wing tip in this race is somewhat longer than in *M. m. abditivus*, thus more like the Pacific forms. Males from Bogotá and Chicoral (near Girardot) are strongly tinged with yellow (about naphthalene or sulphur yellow), and have the "chin-beard" hardly more developed than in *M. m. manacus*, while those from Honda in the latter respect resemble *M. m. abditivus*, which they also approach in their less yellowish coloring.

Material examined.—Bogotá 14; Bucaramanga 1; Chicoral, Coello River, Tolima 4; Honda 1; within twenty miles of Honda 5.

<sup>2</sup>*Manacus manacus bangsi* CHAPMAN: Very similar to *M. m. leucochlamys*, but posterior under parts darker gray, this color sharply defined against the white chest, and "chin-beard" less elongated; female much darker green underneath than the neighboring races, and in coloration much like *M. m. gutturosus*, from which it is, of course, easily distinguished by its much shorter tail, narrower, less falcate outer primaries, and rather longer wing tip. Wing (adult male) 52-53; tail 25½-27.

This race differs from *M. m. abditivus*, in the male sex, by shorter tail, more pointed wing, and much darker gray, strongly defined abdominal area, while in



*Manacus manacus bangsi* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 625, 1914—Barbacoas, Nariño, Colombia; idem, l.c., 36, p. 486, 1917—Barbacoas.

Range: Tropical Zone of the Pacific coast of southwestern Colombia (Barbacoas, state of Nariño).

**\**Manacus manacus leucochlamys* Chapman.<sup>1</sup> WEST ECUADORIAN MANAKIN.**

*Manacus manacus leucochlamys* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 626, 1914—Esmeraldas, Ecuador; idem l.c., 55, p. 535, 1926—Esmeraldas, Manavi, and Bucay.

*Manacus manacus maximus* CHAPMAN, Amer. Mus. Novit., 138, p. 7, 1924—Alamor, prov. Loja, southwestern Ecuador; idem, Bull. Amer. Mus. N.H., 55, p. 535, 1926—Naranjo, Bucay, Chimbo, Ríos Chimbo and Coco, Río Jubones, La Chonta, Santa Rosa, and Alamor.

*Chiomachaeris manacus* (not *Pipra manacus* LINNAEUS) SCLATER, P.Z.S. Lond., 28, p. 89, 1860—Nanegal; p. 279—Babahoyo; p. 296—Esmeraldas; BERLEPSCH and TACZANOWSKI, l.c., 1883, p. 559—Chimbo; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—part, spec. m-p, Santa Rita, Nanegal, Ecuador; HARTERT, Nov. Zool., 5, p. 488, 1898—Paramba, Cachaví, Chimbo; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—part, Río Peripa; GOODFELLOW, Ibis, 1901, p. 709—"Archidona," errore, = western Ecuador.

*Manacus manacus manacus* BANGS, Proc. New Engl. Zool. Cl., 1, p. 34, 1899—part, Guayaquil, Ecuador.

*Manacus manacus* MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B61, 1911—part, Guala.

the development of the gular feathers it is intermediate between *M. m. abditivus* and *M. m. leucochlamys*. The deep slate gray belly reminds one of *M. m. gutturosus*, from which it can easily be told, however, by much shorter tail, narrower, less falcate outer primaries, and longer wing tip (fully 10 mm. long).

Material examined.—Colombia: Barbacoas, Nariño 5.

<sup>1</sup>*Manacus manacus leucochlamys* CHAPMAN: Male similar to *M. m. interior*, but with shorter tail; white nuchal collar wider; black dorsal area more restricted; slate gray of upper tail coverts spreading all over the rump; posterior under parts on average more whitish; wing tip and "chin-beard" as in *M. m. interior*.

Further subdivision of the west-Ecuadorian race seems to me impracticable, though males from Chimbo and southwards are as a rule somewhat whiter beneath, certain specimens recalling *M. m. trinitatis*. I do not find any constant difference in dimensions between skins from the north and south, although it must be admitted that two from Alamor have the wings one or two millimeters longer than any other example seen by me.

Length of wing (adult males).—Prov. Esmeraldas (San Javier, Paramba, etc.) 51-55 (twelve); Guala 53-55 (three); Bucay 52-54 (four); Chimbo 53-55 (three); Ana María, Quevedo, prov. Guayas 54; Alamor, prov. Loja, 56, 57 (two).

An interesting individual variant, secured by G. Flemming at Paramba, on January 8, 1900, together with normally colored males of *leucochlamys*, is preserved in the collection of the Tring Museum. This bird has the white areas of the plumage even more strongly tinged with yellowish than *flaveolus*, while rump, upper tail coverts and abdomen are light olive green.

Material examined.—Western Ecuador (Esmeraldas to Alamor) 40.

*Chiromachaeris manacus additivus* (not of BANGS) HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—part, western Ecuador.

Ranges: Western Ecuador, from Esmeraldas south to the province of Loja.

2: Ecuador (Puente de Chimbo, prov. Guayas 1; Pambílar, prov. Esmeraldas 1).

**\**Manacus manacus gutturosus* (Desmarest). DESMAREST'S MANAKIN.**

*Pipra gutturosa* DESMAREST, Hist. Nat. Tang., Manakins et Todiers, livr. 6, pl. 58, 1806—no locality specified.

*Pipra manacus* (not of LINNAEUS) WIED, Beitr. Naturg. Bras., 3, (1), p. 432, 1831—southeastern Brazil; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 446, 1856—Nova Friburgo, Rio; EULER, Journ. Orn., 15, p. 89, 1867 (nest and eggs descr.).

*Chiromachaeris gutturosa(us)* PELZELN, Orn. Bras., 2, p. 130, 1868—Rio de Janeiro, Sapitiba, Registo do Sai, and Ypanemá, São Paulo; REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 455—Lagôa Santa and Sete Lagôas, Minas Geraes; HAMILTON, Ibis, 1871, p. 305—São Paulo; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; PELZELN, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 313, 1888—Bahia, "Novo" Friburgo, "Rio Claro, Goyaz," São Paulo, Brazil; BOUCARD and BERLEPSCH, The Humming Bird, 2, p. 45, 1892—Porto Real, Rio; IHERING, Rev. Mus. Paul., 3, p. 209, 1899—São Sebastião, Iguapé, Piquete, and Ypiranga, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 302, 1907—part, Jaboticabal, Cachoeira, Piquete, São Sebastião, Iguapé, Rio Feio, Avanhandava, Barretos, and Ubatuba (São Paulo), Ourinho (Paraná), Marianna (Minas Geraes), and Porto Cachoeiro (Espírito Santo); LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, Bahia; PINTO-PEIXOTO, Arch. Mus. Nac. Rio de Janeiro, 24, p. 262, 1924—Monte Serrat, Itatiaya; HOLT, Bull. Amer. Mus. N.H., 57, p. 309, 1928—near Monte Serrat, Itatiaya.

*Chiromachaeris manacus gutturosus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—Bahia to São Paulo.

*Manacus manacus gutturosus* BANGS, Proc. New Engl. Zool., 1, p. 36, 1899—southeastern Brazil; DABBENE, Bol. Soc. Physis, 1, p. 435, 1914—Santa Ana, Misiones. BERTONI, El Hornero, 1, p. 257, 1919—Puerto Bertoni, Paraguay.

Range: Wooded region of southeastern Brazil, from Bahia to Paraná, and adjacent parts of eastern Paraguay (Puerto Bertoni) and northeastern Argentina (Misiones).<sup>1</sup>

9: Brazil (Bahia 1; Santo Amaro, Bahia 7; Rio de Janeiro 1).

<sup>1</sup>In addition to our own, the following specimens have been examined: Bahia 9; Victoria, Espírito Santo 2; Rio de Janeiro (Sapitiba, Rio) 5; São Paulo (various localities) 16.

**Manacus vitellinus vitellinus (Gould).** GOULD'S MANAKIN.

*Pipra vitellina* GOULD, P.Z.S.Lond., 11, p. 103, Dec., 1843—Panama; idem in HINDS, Zool. Voy. Sulphur, Birds, p. 41, pl. 21, 1843—Panama; LAFRESNAYE, Rev. Zool., 10, p. 69, 1847—Panama.

*Chiroxiphia vitellina* LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 296, 1862—Lion Hill, Panama Railroad.

*Chiromachaeris vitellina(us)* SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 362—Lion Hill, Panama; SCLATER, Cat. B. Brit. Mus., 14, p. 315, 1888—part, spec. a-k, "Nicaragua," "Veragua," Paraíso Station, Panama; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 114, 1890—"Veraguas," Lion Hill, Obispo, and Paraíso Station, Panama; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Punta de Sabana, Darién; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—part, Panama.

*Manacus vitellina(us)* BANGS, Proc. New Engl. Zool. Cl., 2, p. 22, 1900—Loma del León, Panama; THAYER and BANGS, Bull. Mus. Comp. Zool., 46, p. 217, 1906—Sabana de Panama; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 732, 1907—Panama and adjacent parts of Colombia; STONE, Proc. Acad. Nat. Sci. Philad., 70, p. 268, 1918—Gatún, Panama (nest and eggs descr.); HALLINAN, Auk, 41, p. 318, 1924—Río Algarroba, Gorgona, Río Velasquez, and Corozal, Panama.

*Manacus vitellinus vitellinus* BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 214, 1922—Río Esnape and Jesusito, Darién.

Range: Eastern Panama, from the Panama Railroad east to Darién.<sup>1</sup>

**\*Manacus vitellinus viridiventris Griscom.<sup>2</sup>** GREEN-BELLIED MANAKIN.

*Manacus vitellinus viridiventris* GRISCOM, Bull. Mus. Comp. Zool., 69, p. 179, 1929—"Jiminez" [= Jiménez], above Buenaventura, Pacific Colombia (type), and Cana, extreme eastern Panama.

*Chiromachaeris vitellina (us)* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 517—part, Cauca; SCLATER, Cat. B. Brit. Mus., 14, p. 315, 1888—part, spec. l, m, Cauca; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—part,

<sup>1</sup>Its occurrence in western Panama (Veraguas) requires confirmation.

Material examined.—Panama: near Panama City 9; Panama Railroad 2; Loma del León 9; Esnape 1, Jesusito, Darién 5.

<sup>2</sup>*Manacus vitellinus viridiventris* GRISCOM: Very similar to *M. v. vitellinus*, but male with breast and abdomen more solidly and darker green, near Warbler green; female above decidedly darker (between warbler green and olive green), and under parts more uniform warbler green, without pyrite yellow suffusion along the middle of the belly. Wing 53-55, (female) 54-56; tail 28-30; bill 10.

I do not find any constant difference in the color of the yellow portions of the plumage between *vitellinus* and *viridiventris*, though a few males of the latter slightly diverge in the direction of *M. v. milleri*.

According to Griscom (l.c.), specimens from Cana (upper Tuyra, Darién), while intermediate, are nearer to the present form than to typical *vitellinus*.

Material examined.—Colombia: Noanamá 6, Nóvita 4, San José 1, Buenaventura, Chocó 1; Florida, Cauca 1; Cauca Seca 2; Río Frío, Cauca, 1; Río Lima, Cauca 1.



western Colombia; idem, P.Z.S.Lond., 1911, p. 1141—Noanamá and Nóvita, Chocó, Colombia.

*Manacus vitellinus vitellinus* CHAPMAN, Bull. Amer. Mus. Nat. Hist., 36, p. 487, 1917—Alto Bonito, Dabeiba, Río Sucio, Quibdó (Río Atrato), Juntas de Tamaná, Nóvita, Noanamá, Buenaventura, San José, Los Cisneros (Chocó), Río Frío, Guengué, and Cauca Seca (upper Cauca), Colombia.

Range: Western Colombia (Pacific coast and upper Cauca Valley) and north to extreme eastern Darién (Cana, upper Tuyra River).

2: Colombia (San José 1, Buenaventura 1).

***Manacus vitellinus milleri* Chapman.<sup>1</sup> MILLER'S MANAKIN.**

*Manacus vitellinus milleri* CHAPMAN, Bull. Amer. Mus. N.H., 34, p. 645, 1915—Puerto Valdivia, lower Cauca; idem, l.c., 36, p. 487, 1917—Puerto Valdivia.

*Chiromachaeris vitellina* (not *Pipra vitellina* GOULD) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 517, pl. 42, fig. 10 (egg)—part, Remedios.

Range: Northern Colombia, in the lower Cauca Valley and adjacent districts (Remedios, Río Ité).

**\**Manacus aurantiacus* (Salvin).<sup>2</sup> SALVIN'S MANAKIN.**

*Chiromachaeris aurantiaca* SALVIN, P.Z.S.Lond., 1870, p. 200—Mina de Chorchá and Bugaba, Chiriquí, Panama; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Las Trojas, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 316, 1888—Bugaba, Mina de Chorchá, Chiriquí, and Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 115, pl. 41, figs. 1, 2, 1890—Bugaba, Mina de Chorchá; CHERRIE, Expl. Zool. en Costa Rica, 1890-91, p. 26, 1893—Palmar, Lagarto, Boruca, Térraba, and Buenos Aires, Costa Rica; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—Chiriquí and Costa Rica.

<sup>1</sup>*Manacus vitellinus milleri* CHAPMAN: Differs from *M. v. vitellinus*, in the male sex, by reason of much paler, lemon chrome (instead of between light cadmium and cadmium yellow) throat and foreneck, deepening into empire yellow or light cadmium on auriculars, sides of neck, and nuchal collar, and much lighter, pale olive yellow rather than pyrite yellow or warbler green abdomen, while the females are merely somewhat paler greenish on the anterior lower parts. Wing 52-53, (female) 53-56; tail 27-30.

It is rather singular that this well-marked race lives side by side with *M. manacus abditivus*, although the intermediate nature of its characters would seem to favor the theory that *M. manacus* and *M. vitellinus* are subspecifically related, inasmuch as representatives of the two groups otherwise replace each other geographically. The problem of their relationship is one of unusual interest and may have some bearing on the origin of specific units.

Material examined.—Colombia: Puerto Valdivia, lower Cauca 7.

<sup>2</sup>*Manacus aurantiacus* (SALVIN) almost certainly is merely a northern representative of *M. vitellinus*, but more information about the distribution of the two "species" in southern Central America (western Panama) is needed before the use of trinomials seems advisable.

*Manacus aurantiaca(us)* BANGS, Auk, 18, p. 365, 1901—Divala, Panama; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 734, 1907—western Panama and Costa Rica; BANGS, Auk, 24, p. 303, 1907—Boruca, El Pozo, Paso Real, and Lagarto de Térraba, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 683, 1910—southwestern Costa Rica (nest and eggs descr.).

Range: Southwestern Costa Rica (north to Las Trojas) and western Panama (Chiriquí and Veraguas).<sup>1</sup>

6: Costa Rica (Buenos Aires 1, Boruca 3, Térraba 2).

**\**Manacus cerritus* Peters.<sup>2</sup> ALMIRANTE MANAKIN.**

*Manacus cerritus* PETERS, Proc. New Engl. Zool. Cl., 10, p. 9, 1927—Almirante Bay, northwestern Panama.

Range: Caribbean slope of northwestern Panama (Almirante Bay).

1: Panama (Changuinola 1).

**\**Manacus candei* (Parzudaki). CANDÉ'S MANAKIN.**

*Pipra candei* PARZUDAKI, Rev. Zool., 4, p. 306, 1841—Truxillo, Honduras; idem, Mag. Zool., (2), 5, cl. 2, pl. 45, 1843—Truxillo.

*Manacus candei* SCLATER, P.Z.S.Lond., 24, p. 299, pl. 121, 1856—Córdoba, Vera Cruz, Mexico; SUMICHRIST, Mem. Boston Soc. Nat. Hist., 1, p. 558, 1869—Vera Cruz; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 730, 1907—southeastern Mexico to Costa Rica (monog., full bibliography); CARRIKER, Ann. Carnegie Mus., 6, p. 684, 1910—northern portion of Caribbean Costa Rica (habits); PETERS, Auk, 30, p. 375, 1913—Xcopen and Camp Mengel, Quintana Roo; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—San Juan del Norte, Nicaragua.

*Manacus candaei* SCLATER and SALVIN, Ibis, 1, p. 124, 1859—Honduras, Guatemala (Lake Petén), and Mexico (Córdoba, Vera Cruz); RICHMOND, Proc. U.S.Nat. Mus., 16, p. 509, 1893—Río Escondido, Nicaragua (habits); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 101, 1907—Puerto Barrios, Guatemala.

*Chiromachaeris candaei* SCLATER, Cat. B. Brit. Mus., 14, p. 314, 1888—Honduras, Guatemala, British Honduras, Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 114, 1890—Mexico to Costa Rica.

<sup>1</sup>Although Sclater records both *M. vitellinus* and *M. aurantiacus* from "Veragua (Arcé)," Mr. Ludlow Griscom (in litt.) found only the latter form in the lowland forests throughout that province.

<sup>2</sup>*Manacus cerritus* PETERS: Adult male nearest to *M. v. vitellinus*, but breast and abdomen mainly lemon chrome, though slightly shaded with greenish, especially on flanks and under tail coverts; median upper wing coverts pale yellow at base instead of uniform black; yellow nuchal collar wider and black dorsal area correspondingly less extensive; wing slightly longer. Wing 54-56; tail 35; bill 9.

By the yellow belly, lesser amount of black on the back, and partly yellow median upper wing coverts, this form approaches *M. aurantiacus*, but agrees with *M. vitellinus* in the deep black wings and tail without greenish edges and in the cadmium yellow instead of orange color of the nuchal collar, sides of head, throat, and chest. Like *M. aurantiacus*, it is probably a geographical race of *M. vitellinus*.

Material examined.—Panama: Changuinola 1.

*Chiromachaeris candei* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—eastern Mexico to Costa Rica.

*Manacus candei electilis* BANGS, Proc. New Engl. Zool. Cl., 3, p. 106, 1903—Vera Cruz, Mexico.

Range: Southeastern Mexico (in states of Vera Cruz, Tabasco, and Chiapas, and territory of Quintana Roo), south through Guatemala, British Honduras, Honduras, and Nicaragua to northeastern Costa Rica.

7: Guatemala (Puerto Barrios 1, unspecified 2); Nicaragua (San Emilio, Lake Nicaragua 4).

### **Manacus coronatus (Boucard).<sup>1</sup> BOUCARD'S MANAKIN.**

*Chiromachaeris coronata* BOUCARD, P.Z.S.Lond., 1879, p. 178, pl. 17—Colombia=Bogotá (type in Paris Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 316, 1888—Bogotá; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 23, 1910—Bogotá.

Range: Colombia (Bogotá).

### **Genus NEOPIPO Sclater and Salvin.**

*Neopipo* SCLATER and SALVIN, P.Z.S.Lond., 1869, p. 438—type by orig. desig.

*Neopipo rubicunda* SCLATER and SALVIN = *Pipra cinnamomea* LAWRENCE.

### **Neopipo cinnamomea cinnamomea (Lawrence). CINNAMON MANAKIN.**

*Pipra* ? *cinnamomea* LAWRENCE, Proc. Ac. Nat. Sci. Phila., 1868, p. 429—"Upper Amazon."

<sup>1</sup>*Manacus coronatus* (BOUCARD): Crown glossy black; forehead, cheeks, orbital region, auriculars, and nuchal collar lemon yellow (about the same shade as the abdomen of *M. candei*); back, wings and tail glossy black; chin white, slightly tinged with yellowish; throat and foreneck dull black, the whitish bases of the feathers showing through in the middle of the lower throat and suggesting an irregular pale patch; remainder of under parts dark gray, indistinctly flammulated with whitish. Bill horn brown, whitish below. Wing 57; tail 28; bill 10.

The type, a skin of the well-known Bogotá "make," is still unique in the Paris Museum. In structural characters, this singular bird stands somewhat between *Pipra* and *Manacus*. There is but a faint suggestion of the "beard," so conspicuous a feature in *Manacus*, the feathers of the chin being hardly more elongated than in *Pipra erythrocephala*. The outer primaries are neither so broad and straight as in *Pipra* nor strongly attenuated and incurved as in *Manacus*, but merely show a distinct sinuation along the inner web, while the tip is very slightly bent inwards. The wing is longer than in *Manacus*, but the tail about the same proportion. The bill is larger, particularly when viewed from below, than in *Manacus*, and its color, especially the pale lower mandible, also reminds one of *Pipra*. The gray uropygium, save for a few edges, is replaced by the black of the back, which is very nearly as strongly glossed with metallic blue as in *Pipra erythrocephala*, instead of being opaque (dull) as in *Manacus*. The markings of breast and abdomen give an abnormal impression. The feathers have a dingy white mesial stripe laterally margined with dark gray, these edges forming in places a kind of ill-defined streaking. I have little doubt this supposed species is nothing but a hybrid between *Manacus manacus* (subsp.) and one of the yellow-headed varieties of *Pipra erythrocephala*.



*Neopipo rubicunda* SCLATER and SALVIN, P.Z.S.Lond., 1869, p. 438, pl. 30, fig. 3—Chamicuros, Peru (type examined).

*Neopipo cinnamomea* SCLATER and SALVIN, P. Z. S. Lond., 1873, p. 283—Xeberos and Chamicuros, Peru; TACZANOWSKI, Orn. Pér., 2, p. 346, 1884—same localities; SCLATER, Cat. B. Brit. Mus., 14, p. 303, 1888—part, spec. a-e, Chamicuros, Peru and Sarayacu, Ecuador; HELLMAYR, Nov. Zool., 14, p. 361, 1907; l.c., 17, p. 308, 1910—Humaythá, Rio Madeira; idem in WYTSMAN, Gen. Av., Part 9, p. 24, 1910—part, eastern Ecuador, Peru, and western Brazil; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 536, 1926—Rio Suno, Ecuador.

*Neopipo cinnamomea cinnamomea* HELLMAYR, Nov. Zool., 20, p. 247, 1913 (range, characters); idem, Arch. Naturg., 85, A, Heft 10, p. 65, 1920—Yahuar mayo, Carabaya, Peru.

Range: Upper Amazonia, from eastern Ecuador (Sarayacu, Río Suno) and eastern Peru (Chamicuros, Xeberos [= Jeveros], dept. Loreto; Yahuar mayo, Carabaya, dept. Puno) east to western Brazil (Humaythá, left bank of the Rio Madeira).<sup>1</sup>

***Neopipo cinnamomea helenae* McConnell.<sup>2</sup> HELENA'S MANAKIN.**

*Neopipo helenae* MCCONNELL, Bull. Brit. Orn. Cl., 27, p. 105, 1911—Ituribisce, British Guiana (type examined); CHUBB, Birds Brit. Guiana, 2, p. 262, pl. 4, fig. 1, 1921—Ituribisi and Makauria Rivers.

*Neopipo cinnamomea* (not of LAWRENCE) SALVIN, Ibis, 1885, p. 301—Camacusa, Brit. Guiana (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 303, 1888—part, spec. f,g, Camacusa; BERLEPSCH, Nov. Zool., 15, p. 138, 1908—Ipousin, Approuague River, French Guiana (spec. examined); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 24, 1910—part, "Cayenne" and British Guiana.

*Neopipo cinnamomea helenae* HELLMAYR, Nov. Zool., 20, pp. 246, 247, 1913—British and French Guiana (char., crit.).

Range: French and British Guiana.

<sup>1</sup>Material examined.—Ecuador: Sarayacu 1.—Peru: Chamicuros 3, Yahuar mayo 1.—Brazil: Humaythá, Rio Madeira 1.

<sup>2</sup>*Neopipo cinnamomea helenae* MCCONNELL: Very close to *N. c. cinnamomea*, but upper back duller, less cinnamomeous, with a grayish cast; lores grayish white instead of buff; sides of head pale grayish olive, not deep buff; under parts on average paler. Wing 50-52; tail 36-38; bill 7-8.

Three adult males have a large yellow crown patch, tipped with olive gray, while in the single female examined there is but a small cinnamon vertical spot to be seen. I have little doubt that the same sexual difference obtains in typical *cinnamomea*, although no female examples have been available for comparison. The coloration of the lower parts is not diagnostic. A male from Ipousin has the throat paler buffy than any other specimen seen (though by no means grayish white), but the type and another from Camacusa do not differ in this respect from typical *cinnamomea*.

Material examined.—French Guiana: Ipousin, Approuague River 1.—British Guiana: Ituribisce River (type) 1, Camacusa 2.

Genus **MASSORNIS** Oberholser.

*Schiffornis* (not of BONAPARTE, 1854) DES MURS in CASTELNAU, Expéd. Amér. Sud, Ois., livr. 18, p. 66—June, 1856—type by monotypy *Schiffornis major* DES MURS.

*Massornis* OBERHOLSER, Auk, 37, p. 455, 1920—type by orig. desig. *Schiffornis major* DES MURS.

**Massornis major** (*Des Murs*).<sup>1</sup> GREATER MANAKIN.

*Schiffornis major* DES MURS<sup>2</sup> in CASTELNAU, Expéd. Amér. Sud, Ois., livr. 18, p. 66, pl. 18, fig. 2, June, 1856—Sarayacu, Peru (type in Paris Museum examined); HARTLAUB, Journ. Orn., 5, p. 47, 1857 (German translation of original description); SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 190—Nauta, Peru; idem, l.c., 1873, p. 284—Nauta; TACZANOWSKI, Orn. Pér., 2, p. 352, 1884—Sarayacu and Nauta; SCLATER, Cat. B. Brit. Mus., 14, p. 323, 1888—"Oyapoc, Cayenne," Nauta and Samiria, Peru; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá (spec. examined); idem, Cat. Faun. Braz., 1, p. 304, 1907—Rio Juruá; SNETHLAGE, Journ. Orn., 56, p. 12, 1908—Bom Lugar, Rio Purús; BERLEPSCH, Nov. Zool., 15, p. 139, 1908—"Oyapoc, Cayenne" (ex SCLATER); HELLMAYR, l.c., 14, p. 362, 1907—Borba, Rio Madeira (crit.); idem, l.c., 17, p. 310, 1910—Calama, Santa Izabel (Rio Preto), Jamarysinho (Rio Machados), Rio Madeira; idem in WYTSMAN, Gen. Av., Part 9, p. 25, 1910—Amazonia; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 371, 1914—Bom Lugar, Rio Purús.

*Heteropelma rufum* PELZELN, Orn. Bras., 2, pp. 124, 185, Sept., 1868—Borba, Rio Madeira, and Rio Amajaú, Rio Negro (spec. in Vienna Museum examined).

*Schiffornis rufa* SCLATER, Cat. B. Brit. Mus., 14, p. 323, 1888—Rio Amajaú; SNETHLAGE, Journ. Orn., 61, p. 525, 1913—lower Jamundá; idem, Bol. Mus. Goeldi, 8, p. 371, 1914—Rio Jamundá, Faro.

Range: Northern Brazil, on both sides of the lower Amazon, east to the Tapajóz (Santarém) and Jamundá (Faro), north to the Rio Negro, south to the Rio Machados; and eastern Peru (Nauta, Samiria; Sarayacu, lower Ucayali).<sup>3</sup>

<sup>1</sup>The supposed two species are merely individual variants, both gray-capped and rufous-capped specimens, together with every possible intermediate stage, being found on the Rio Amajaú, Rio Madeira, at Santarém, along the Rio Solimões, and in eastern Peru.

Material examined.—Brazil: Santarém 4; Rio Amajaú (Rio Negro) 4; Rio Madeira, Borba 3, Calama 2; Santa Izabel, Rio Preto 1; Jamarysinho, Rio Machados 1; Rio Juruá 1; Fonte Boa, Rio Solimões 3.—Peru: Sarayacu (the type) 1, Nauta 1, Samiria 2.

<sup>2</sup>*Schiffornis major* BONAPARTE (Ateneo Italiano, 2, No. 11, p. 314, 1854; Consp. Voluc. Anisod., p. 4, 1854) is a nomen nudum.

<sup>3</sup>The locality "Oyapoc, Cayenne" is open to doubt.

Genus **SCHIFFORNIS** Bonaparte.

*Schiffornis* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 314 (=Consp. Voluc. Anisod., p. 4), 1854—type virtually by monotypy *Muscicapa turdina* WIED.<sup>1</sup>

*Heteropelma* (not of WESMAËL, 1840) BONAPARTE, l.c., p. 314 (=Consp. Voluc. Anisod., p. 4), 1854—type by subs. desig. (GRAY, 1855, p. 56) "*Pipra unicolor* MENETR." = *Heteropelma unicolor* BONAPARTE.

*Scotothorus* OBERHOLSER, Proc. Ac. Nat. Sci. Phila., 1899, p. 208—new name for *Heteropelma* BONAPARTE nec WESMAËL.

**Schiffornis virescens** (*Lafresnaye*). GREENISH MANAKIN.

*Muscicapa virescens* (not of TEMMINCK, 1824) WIED, Beitr. Naturg. Bras., 3, (2), p. 802, 1831—Arrayal da Conquista, southern Bahia.

*Ptil[ochloris] virescens* LAFRESNAYE,<sup>2</sup> Rev. Zool., 1, p. 238, 1838—type from "Brésil" (=Rio de Janeiro), coll. DELALANDE, in Paris Museum examined.

*Heteropelma unicolor* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 314 (=Consp. Voluc. Anisod., p. 4), 1854—new name for *Ptilochloris virescens* LAFRESNAYE.

*Muscicapa viridis* PUCHERAN,<sup>3</sup> Arch. Mus. Hist. Nat. Paris, 7, livr. 3, p. 370, 1855—type from "Brésil," coll. A. DE SAINT-HILAIRE, in Paris Museum examined.

*Pipra morenoana* BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 104, 1901—Djaguarasapá, Paraguay.

*Heteropelma virescens* SCLATER, P.Z.S.Lond., 28, p. 467, 1860—southeastern Brazil; PELZELN, Orn. Bras., 2, p. 124, Sept., 1868—Ypanemá, São Paulo and Curytiba, Paraná; idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; CABANIS, Journ. Orn., 22, p. 90, 1874—Cantagallo, Rio; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 139, 1885—Taquara and Linha Pirajá, Rio Grande do Sul; SCLATER, Cat. B. Brit. Mus., 14, p. 321, 1888—Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 237, 1889—Arrayal da Conquista, Bahia (note on Wied's type); IHERING, Anuario Est. Rio Grande do Sul, 16, p. 127, 1899—[Taquara do] Mundo Novo; IHERING, Rev. Mus. Paul., 3, p. 210, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio.

*Scotothorus unicolor* OBERHOLSER, Proc. Ac. Nat. Sci. Phila., 1899, pp. 208, 209 (nomencl.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 303, 1907—Campos do Jordão, Ubatuba, Alto da Serra, Jundiáhy, Itatiba, Itararé, Itapura, Iguapé, and São Paulo, Est. São Paulo; HELLMAYR in WYTSMAN,

<sup>1</sup>See OBERHOLSER, Auk, 45, p. 454, 1920.

<sup>2</sup>*Ptilochloris virescens* being independently described as a new species, there is no reason for rejecting the specific name, which is by no means affected by the earlier *Muscicapa virescens* TEMMINCK. The case would be quite different if Lafresnaye had merely transferred *Muscicapa virescens* WIED to the genus *Ptilochloris*.

<sup>3</sup>*Muscicapa viridis* LESSON (Traité d'Orn., p. 384, 1831—Brésil, coll. SAINT-HILAIRE) is a nomen nudum.



Gen. Av., Part 9, p. 27, pl. 1, fig. 7, 1910—Bahia to Rio Grande do Sul; CHUBB, Ibis, 1910, p. 601—Sapucay, Paraguay; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 313, 1910—Alto Paraná, Paraguay; BERTONI, Fauna Parag., p. 58, 1913—Alto Paraná; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 178, 1926—Cara Pintada, Vermelho, Therezina, Candido de Abreu, and Salto Guayra, Paraná; HOLT, Bull. Amer. Mus. N.H., 57, p. 309, 1928—Serra do Itatiaya.

Range: Wooded region of southeastern Brazil, from extreme southern Bahia (Cidade da Conquista) south to Rio Grande do Sul, and Paraguay.<sup>1</sup>

**Schiffornis turdinus turdinus (Wied).**<sup>2</sup> THRUSH-LIKE MANAKIN.

*Muscicapa turdina* WIED, Beitr. Naturg. Bras., 3, (2), p. 817, 1831—eastern Brazil (the type, now in the American Museum of Natural History, New York, is from Bahia).

*Muscicapa rufo-olivacea* LAFRESNAYE, Mag. Zool., 3, cl. 2, text to pl. 13 [p. 3], 1833—no locality given.

*Ptilochloris rufo-olivaceus* LAFRESNAYE, Rev. Zool., 1, p. 238, 1838; idem, l.c., 10, p. 185, 1847—Brazil.

*Heteropelma turdinum* SCLATER, P.Z.S.Lond., 28, p. 467, 1860—southeastern Brazil; PELZELN, Orn. Bras., 2, p. 124, 1868—"Brazil"—Bahia (spec. in Vienna Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 319, 1888—Bahia; ALLEN, Bull. Amer. Mus. N.H., 2, p. 236, 1889—Bahia (note on Wied's type).

*Scotothorus turdinus* IHERING and IHERING, Cat. Faun. Braz., 1, p. 302, 1907—Bahia.

*Scotothorus turdinus turdinus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—Bahia.

*Scotothorus turdinus amazonum* (not of SCLATER) LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia.

Range: Eastern Brazil, in the southern section of the state of Bahia (exact limits unknown).

**Schiffornis turdinus wallacii (Sclater and Salvin).**<sup>3</sup> WALLACE'S MANAKIN.

<sup>1</sup>This species of which fifteen specimens from Minas Geraes (São Francisco) to Rio Grande do Sul have been examined is perhaps subspecifically related to the *S. turdinus* group, but until we acquire a better knowledge of their ranges it is impossible to say whether *S. virescens* and *S. t. turdinus*, both recorded from Bahia, live side by side or inhabit different areas.

<sup>2</sup>This is the largest form of the genus, the wing ranging from 96 to 102 mm., with strong, heavy bill. In coloration, it is nearest to *S. t. amazonus*, but paler below, with a slight brownish tinge on throat and foreneck.

Five trade skins from Bahia examined.

<sup>3</sup>*Schiffornis turdinus wallacii* (SCLATER and SALVIN): Very close to *S. t. amazonus*, but upper parts more greenish, with very little, if any, rufescent tinge

*Heteropelma wallacii* SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 579—Pará (type in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 319, pl. 20, 1888—part, spec. a, Pará; PENARD and PENARD, Vog. Guyana, 2, p. 196, 1910—Surinam; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—Pará.

*Heteropelma surinamensis* PENARD and PENARD, Vog. Guyana, 2, p. 197, 1910—Surinam.

*Scotothorus amazonum wallacii* HELLMAYR, Nov. Zool., 13, p. 363, 1906—Santo Antonio do Prata, Pará; BERLEPSCH, Nov. Zool., 15, pp. 139, 320, 1908—Oyapock and Saint Jean du Maroni, French Guiana; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—Paramaribo, Surinam.

*Scotothorus turdinus wallacii* HELLMAYR, Nov. Zool., 17, p. 311, 1910—Pará district, Saint Jean du Maroni (French Guiana), and near Paramaribo, Surinam (char., crit.); idem in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—Pará; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará and Santo Antonio, Pará; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Pará.

*Scotothorus turdinus olivaceus* (not of RIDGWAY) HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—part, Cayenne.

*Scotothorus wallacii* SNETHLAGE, Bol. Mus. Goeldi, 8, p. 370, 1914—Pará, Providencia, Ananindeua, Rio Tocantins (Alcobaca), Rio Xingú (Victoria), Rio Jary (Santo Antonio da Cachoeira), Rio Jamundá (Faro); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Tury-assú, Maranhão.

Range: Northern Brazil, on the lower Amazon, from northern Maranhão west to the Xingú and Jamundá rivers, north to French and Dutch Guiana.

### **Schiffornis turdinus olivaceus (Ridgway).<sup>1</sup> OLIVACEOUS MANAKIN.**

*Scotothorus olivaceus* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 118, 1906—Rio Mato, Caura, Venezuela; CHUBB, Birds Brit. Guiana, 2, p. 264, 1921—British Guiana (numerous localities).

*Heteropelma amazonum* ? (not of SCLATER) SALVIN, Ibis, 1885, p. 301—Bartica Grove, Camacusa, Carimang River, and Roraima, British Guiana (spec. examined).

on the crown; ventral surface paler, more grayish olive; the throat but slightly, if at all, shaded with brownish.

Two specimens from French and Dutch Guiana appear to agree with topotypes.

Material examined.—Brazil: Pará (the type) 1, Santo Antonio do Prata, Pará 5.—French Guiana: Saint Jean du Maroni 1.—Dutch Guiana: near Paramaribo (authentic specimen of *H. surinamensis*) 1.

<sup>1</sup>*Schiffornis turdinus olivaceus* (RIDGWAY): Somewhat intermediate between *S. t. wallacii* and *S. t. amazonus*; differing from the former by more brownish olive back, and much more brownish throat and foreneck; from the latter by slightly paler back, less cinnamonaceous pileum, and more grayish (less olivaceous) belly.

Material examined.—Venezuela: La Pricion, Caura 1; Nicare, Caura 1; Rio Yuruán (Carnegie Museum, No. 33866) 1.—British Guiana: Caramang River 1, Bartica Grove 1, Camacusa 3, Roraima 1, unspecified 2.

*Heteropelma wallacii* (not of SCLATER and SALVIN) SCLATER, Cat. B. Brit. Mus., 14, p. 319, 1888—part, spec. b-j, Bartica Grove, Camacusa, Roraima.

*Scotothorus wallacei* BERLEPSCH and HARTERT, Nov. Zool., 9, p. 54, 1902—Nicare and La Pricion, Caura, Venezuela (spec. examined).

*Scotothorus turdinus olivaceus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—part, eastern Venezuela (Caura district) and British Guiana; idem, Nov. Zool., 17, p. 311, 1910—Caura Valley, Venezuela, and British Guiana; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 249, 1916—Caura Valley.

*Heteropelma flavigula* PENARD and PENARD,<sup>1</sup> Vog. Guyana, 2, p. 196, 1910—British Guiana.

Range: Eastern Venezuela (Mato River, La Pricion and Nicare, Caura River; Rio Yuruán) and British Guiana.

**\*Schiffornis turdinus amazonus (Sclater). AMAZONIAN MANAKIN.**

*Heteropelma amazonum* SCLATER, P.Z.S.Lond., 28, p. 466, 1860—Chamicuros, Río Huallaga, Peru; PELZELN, Orn. Bras., 2, p. 125, 1868—Marabitanas, Río Xié, Borba, Villa Maria and Engenho do Gama, Brazil (spec. in Vienna Museum examined); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 186—Cosnipata, Peru; TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas; idem, Orn. Pér., 2, p. 350, 1884—Yurimaguas; SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—part, spec. b-d, f-j, Sarayacu (Ecuador), Chamicuros, River Ucayali, and Cosnipata (Peru); BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 368—La Gloria, Vitoc. Peru.

*Schiffornis turdinus intercedens* TODD, Proc. Biol. Soc. Wash., 41, p. 113, 1928—Hyutanahán, Río Purús, Brazil.

*Heteropelma wallacii* (not of SCLATER and SALVIN, 1867) SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 283—Chamicuros; TACZANOWSKI, l.c., 1874, p. 539—Soriano, Peru; idem, Orn. Pér., 2, p. 351, 1884—Soriano and Chamicuros, Peru.

*Scotothorus amazonum* BERLEPSCH and HARTERT, Nov. Zool., 9, p. 54, 1902—Nericagua and Munduapo, upper Orinoco, Venezuela (spec. examined); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 371, 1914—Bom Lugar, Río Purús.

*Scotothorus amazonum amazonum* HELLMAYR, Nov. Zool., 14, p. 361, 1907—Humaythá, Río Madeira.

*Scotothorus turdinus amazonum* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910 (range); idem, Nov. Zool., 17, pp. 310, 311, 1910—Calama, Allianca, Borba, Río Madeira and Maroins, Río Machados (crit., range); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 249, 1916—Munduapo and Nericagua, Orinoco River.

*Scotothorus turdinus amazonus* SNETHLAGE, Journ. Orn., 56, p. 12, 1908—Bom Lugar, Río Purús; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 537, 1926—Zamora, Sabanilla, lower Sumaco, Macas, San José, and below San José, Ecuador.

<sup>1</sup>Based on a single specimen in the Georgetown Museum, no doubt an individual variant, with scattered yellowish feathers on pileum and throat.



Range: Upper Amazonia, from the upper stretches of the Orinoco in Venezuela (Munduapo, Nericagua) and eastern Ecuador through eastern Peru and western Brazil south to the Urubamba Valley and western Matto Grosso, east to the Rio Negro and Rio Madeira.<sup>1</sup>

1: Peru (Huachipa, dept. Huánuco 1).

**Schiffornis turdinus steinbachi** Todd.<sup>2</sup> STEINBACH'S MANAKIN.

*Schiffornis turdinus steinbachi* TODD, Proc. Biol. Soc. Wash., 41, p. 113, 1928—Río Yapacani, Province del Sara, Bolivia.

*Scotothorus amazonum* (not of SCLATER) BERLEPSCH and STOLZMANN, Ornith., 13, p. 114, 1906—Chontapuncu and Río Cadena, Marcapata, Peru.

*Schiffornis turdinus amazonum* HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 65, 1920—Chaquimayo, Carabaya, Peru.

Range: Northern Bolivia and extreme southeastern Peru (Marcapata Valley and northern slope of Sierra de Carabaya, dept. Puno).

**Schiffornis turdinus rosenbergi** (Hartert).<sup>3</sup> ROSENBERG'S MANAKIN.

*Heteropelma rosenbergi* HARTERT, Nov. Zool., 5, p. 489, 1898—Cachabí, prov. Esmeraldas, Ecuador (type in Tring Museum examined); SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—Río Peripa.

<sup>1</sup>Birds from eastern Ecuador, Venezuela, and the upper Rio Negro (Marabitanas, Rio Xié) agree well together, being brownish olive above, with the crown more or less rufescent, while the under parts are decidedly olivaceous, washed with brownish on throat and foreneck. Specimens from the Rio Madeira and its headwaters in Matto Grosso are as a rule more olive, less brownish on the dorsal surface, and somewhat paler, more grayish olive on the belly. Apart from certain individuals, which closely approach *S. t. wallacii*, they appear to be inseparable from Peruvian skins. If the present race requires subdivision, it is the birds from north of the Marañón that should be separated. By naming *S. t. intercedens*, Mr. Todd, it seems to me, has merely redescribed typical *amazonus*.

Material examined.—Venezuela: Munduapo 2; Nericagua 1.—Ecuador: Sarayacu 2.—Brazil: Rio Xié 1; Marabitanas, Rio Negro 5; Rio Madeira, Borba 5, Calama 2, Allianca 1, Humaythá 4; Maroins, Rio Machados 2; Villa Maria [=São Luiz de Cáceres] 1, Engenho do Gama, Rio Guaporé, Matto Grosso 1.—Peru: Chamicuros, 1; Huachipa 1.

<sup>2</sup>*Schiffornis turdinus steinbachi* TODD: Closely similar to *S. t. amazonus*, but brown of the throat and chest deeper, more strongly contrasted with the rest of the lower parts, which are more greenish (olive) than in *amazonus*; upper parts slightly less brownish.

Material examined.—Bolivia, Yungas of Cochabamba: Río San Mateo 3, Juntas 1.—Peru: Chaquimayo, Carabaya 1.

<sup>3</sup>*Schiffornis turdinus rosenbergi* (HARTERT): Closely similar to *S. t. amazonus*, but on average smaller; upper and under parts more uniform as well as more greenish olive; the rufescent tinge on the crown barely suggested; the throat but faintly shaded with brownish; outer aspect of the wings less rufous. Wing 85-88; tail 63-68; bill 13-14.

Material examined.—Ecuador: Cachabí (the type) 1, Río Verde 2, Lita 1, Paramba 1, Cachyjacú 1, Mindo 1, Chimbo 1; La Puente, prov. del Oro 1; Alamor, prov. Loja 1.

*Heteropelma wallacii* (not of SCLATER and SALVIN) TACZANOWSKI, P.Z.S. Lond., 1877, p. 332—Palmar, near Santa Rosa, prov. del Oro, Ecuador.

*Heteropelma amazonum* (not of SCLATER, 1860) SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—part, spec. e, Balzar.

*Scotothorus turdinus rosenbergi* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—western Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 487, 1917—Chocó, above Nóvita, and Barbacoas, Colombia; idem, l.c., 55, p. 537, 1926—Esmeraldas, Mindo, Chimbo, La Puente, and Alamor, Ecuador.

Range: Western Ecuador and western Colombia (north to Chocó).

***Schiffornis turdinus stenorhynchus* (Sclater and Salvin).<sup>1</sup> SLENDER-BILLED MANAKIN.**

*Heteropelma stenorhynchum* SCLATER and SALVIN, P.Z.S.Lond., 1868, pp. 628, 632, pub. April, 1869—San Esteban, Venezuela (type in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—San Esteban; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 116, 1890—part, Venezuela.

*Heteropelma amazonum* (not of SCLATER) WYATT, Ibis, 1871, p. 334—Naranjo, west of Bucaramanga, Colombia.

*Heteropelma verae-pacis* (not of SCLATER and SALVIN) ALLEN, Bull. Amer. Mus. N.H., 13, p. 155, 1900—Bonda and Cacagualito, Santa Marta region.

*Scotothorus turdinus stenorhynchus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 27, 1910—part, Venezuela and Colombia; idem and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 87, 1912—Cumbre de Valencia, Carabobo, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 488, 1917—El Consuelo, above Honda, Magdalena Valley, Colombia (spec. examined).

*Scotothorus amazonus stenorhynchus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 762, 1907—part, Colombia and western Venezuela.

*Schiffornis amazonus stenorhynchus* TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 333, 1922—Bonda, Las Vegas, Don Diego, Pueblo Viejo, and Tucurín, Santa Marta region, Colombia.

<sup>1</sup>*Schiffornis turdinus stenorhynchus* (SCLATER and SALVIN): Allied to *S. t. amazonus*, but larger, with slenderer and paler (horn brown rather than blackish) bill; upper parts much more brownish (Dresden brown to Saccardo's umber), pileum more strongly tinged with rufescent; breast and abdomen much paler grayish olive. From *S. t. verae-pacis* it may be distinguished by larger size, slenderer bill; much more brownish upper surface, with Brussels brown pileum; much paler and grayer (grayish olive instead of citrine drab or buffy olive) lower parts, and by having the throat and chest more decidedly tinged with tawny olive or cinnamonous. Wing 90-97, (female) 89-92; tail 64-72, (female) 63-64; bill 14-15.

Certain specimens, in size, closely approach *S. t. turdinus*.

Material examined.—Venezuela: San Esteban (the types) 2, Cumbre de Valencia, Carabobo 1; El Hacha, Bolívar Railroad, Lara 1; Lagunita de Aroa, Lara 2; Azulita, Mérida 1.—Colombia, Santa Marta region: Bonda 2, Las Vegas 4, Don Diego 2, Pueblo Viejo 1, Tucurín 1; El Consuelo, above Honda, Magdalena Valley 1.

Range: Northern Venezuela (in states of Carabobo, Lara, and Mérida) and eastern Colombia (Santa Marta region; Magdalena Valley, south to El Consuelo, above Honda).

**Schiffornis turdinus panamensis** subsp. nov.<sup>1</sup> PANAMA MANAKIN.

*Heteropelma verapacis* (not *H. verae-pacis* SCLATER and SALVIN) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 463, 1862—Panama (spec. examined).

*Heteropelma verae-pacis* SALVIN, P.Z.S.Lond., 1883, p. 424—Panama; SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—part, spec. r, Panama.

*Heteropelma stenorhynchum* (not of SCLATER and SALVIN) SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 116, 1890—part, Panama.

*Scotothorus amazonus stenorhynchus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 762, 1907—part, Frijole Station and Panama City, Panama.

*Scotothorus turdinus stenorhynchus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 27, 1910—part, Panama; BANGS and BARBOUR Bull. Mus. Comp. Zool., 65, p. 215, 1922—Mount Sapo, Río Esnape, and Jesusito, Darién (spec. examined).

Range: Lower Tropical Zone of eastern Panama from the Canal Zone east to the Río Sambú.

**Schiffornis turdinus furvus** (Ridgway).<sup>2</sup> SWARTY MANAKIN.

*Scotothorus furvus* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 118, 1906—Boquete de Chitrá, Veraguas, Panama; idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 761, 1907—"Pacific slope of western Panama."

<sup>1</sup>*Schiffornis turdinus panamensis* subsp. nov.

Type from El Real, Río Tuyra, eastern Panama, in American Museum of Natural History, New York. No. 135027. Adult female. December 29, 1914. W. B. Richardson.

*Characters*.—Most nearly related to *S. turdinus stenorhynchus* and about the same size, but immediately recognizable by its much more saturated coloration; upper parts much darker and more rufescent (Brussels brown to raw umber instead of Dresden brown to Saccardo's umber), the edges to the wings deeper, more auburn, and the crown more rufous (cinnamon brown to Argus brown rather than Brussels brown); throat and chest much darker, buckthorn or antique brown rather than tawny olive; breast and abdomen slightly more olivaceous; bill as a rule stouter. Wing 90-96, (female) 85-92; tail 64-72, (female) 60-65; bill 13½-15.

*Remarks*.—Although heretofore united with *S. t. stenorhynchus*, of north-western South America, this form proves to be easily separable by its much darker coloring, the deep tawny brown throat and chest, strongly contrasting with the olivaceous abdomen, being the most striking feature. Three specimens from the Panama Railroad, collected by McLeannan, agree precisely with a series from Darién.

Material examined.—Panama: Panama Railroad 3; El Real, Río Tuyra 7, Tapalisa (400 ft.) 1, Chepigana 1; Mount Sapo 3, Río Esnape 1, Jesusito, Darién 1.

<sup>2</sup>*Schiffornis turdinus furvus* (RIDGWAY): Nearest to *S. t. verae-pacis*, but somewhat darker, more tawny olive above, with the crown slightly more rufescent; under parts likewise deeper, throat and foreneck more strongly tinged with brownish. In coloration not unlike *S. t. rosenbergi*, but much larger, with heavier,



*Heteropelma verae pacis* (not of SCLATER and SALVIN) SALVIN, P.Z.S.Lond., 1870, p. 200—part, Castillo and Calovevora, Veragua; SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—part, spec. 1-o, Calovevora, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 116, 1890—part, Chitrá, Castillo, and Calovevora, Veragua.

*Scotothorus turdinus furvus* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—Veragua.

Range: Western Panama (Veraguas, except coastal forests of Pacific slope), extending east to the upper Tropical Zone of Mount Tacarcuna, in eastern Panama.

**\*Schiffornis turdinus verae-pacis** (*Sclater and Salvin*). BROWN MANAKIN.

*Heteropelma verae-pacis* SCLATER and SALVIN, P.Z.S.Lond., 28, p. 300, 1860—Choctum, Vera Paz, Guatemala; SCLATER, l.c., p. 467—Guatemala; SALVIN, l.c., 1870, p. 200—part, Bugaba and Volcán de Chiriquí; SCLATER, Cat. B. Brit. Mus., 14, p. 320, 1888—part, spec. a-k, p, q, Choctum, Vera Paz, Yzabel, Guatemala, Costa Rica, Volcán de Chiriquí, and Bugaba; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 116, 1890—part, southern Mexico to Chiriquí (excl. Veraguan localities).

*Scotothorus verae-pacis verae-pacis* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 758, 1907—southeastern Mexico, Guatemala, western and central Honduras (monog., full bibliography).

*Scotothorus verae-pacis* DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 101, 1907—Los Amates, Guatemala; BANGS, Proc. Biol. Soc. Wash., 22, p. 32, 1909—Costa Rica (crit.); CARRIKER, Ann. Carnegie Mus., 6, p. 677, 1910—Costa Rica (numerous localities, habits, crit.).

*Scotothorus verae pacis dumicola* BANGS, Proc. New Engl. Zool. Cl., 3, p. 103, 1903—Divala, Chiriquí (type examined); idem, Auk, 24, p. 303, 1907—El Pozo del Río Grande, Costa Rica; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 759, 1907—coast of British Honduras to Panama.

stronger bill; crown, throat, and chest as a rule more rufescent. Wing 90-95, (female) 86-90; tail 68-75, (female) 62-67; bill 14-16.

In the light of the splendid series supplied by the American Museum of Natural History, this race proves to be much less distinct from *S. t. verae-pacis*, of Central America, than was supposed by its describer who based his diagnosis upon a single example. Ten skins obtained by H. E. Anthony, D. S. Ball, and W. B. Richardson in the upper Tropical Zone of Mount Tacarcuna, eastern Panama, at altitudes of from 3600 to 4600 feet, are evidently inseparable from a topo-typical Veraguan series, though averaging slightly larger. They are, however, very different from *S. t. panamensis*, which Richardson secured on the Río Tuyra and even at Tapalisa (400 ft.), on the lower slopes of Mount Tacarcuna, because of much larger, blacker bill and decidedly greenish olive (not brownish) coloration. The upper parts vary between dark citrine and medal bronze, with the crown hardly more reddish than the back, and the wing edgings are duller, Prout's brown rather than auburn, while the ventral surface ranges from dull citrine to dark citrine, with a slight olive tawny or medal bronze tinge on the anterior parts.

Material examined.—Panama, Veraguas: Santa Fé (1600 to 2200 ft.) 4, Guaval, Río Calovevora 7; Mount Tacarcuna (3600 to 4600 ft.), Darién 10.

*Scotothorus turdinus verae-pacis* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 26, 1910—Guatemala to Chiriquí.

Range: Southeastern Mexico, in state of Vera Cruz (Playa Vicente), and southwards through Guatemala, British Honduras, Honduras, and Costa Rica to western Panama (including the coastal forests of western Veraguas).<sup>1</sup>

4: Guatemala (Vera Paz 1, Los Amates, Izabal 1); Costa Rica (Tuis 1, Boruca 1).

### Genus *SAPAYOA* Hartert.<sup>2</sup>

*Sapayoa* HARTERT, Nov. Zool., 10, p. 117, 1903—type by orig. desig. *Sapayoa aenigma* HARTERT.

#### \**Sapayoa aenigma* Hartert.<sup>3</sup> ENIGMA MANAKIN.

*Sapayoa aenigma* HARTERT, Nov. Zool., 10, p. 117, 1903—Río Sapayo, prov. Esmeraldas, Ecuador (type in Tring Museum examined; =female); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 28, pl. 1, figs. 5, 8, 1910—Río Sapayo; idem, P.Z.S.Lond., 1911, p. 1141—Nóvita and Noanamá, Chocó, Pacific Colombia (descr. of adult male and young); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 488, 1917—Baudó, Noanamá, and Barbacoas, Colombia; idem, l.c., 55, p. 538, 1926 (range); BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 215, 1922—Mount Sapo, Darién; GRISCOM, l. c., 69, p. 180, 1929—Cana Darién.

Range: Tropical Zone of the Pacific coast from eastern Panama (Mount Sapo and Cana, Darién) to northwestern Ecuador (Prov. Esmeraldas).

1: Panama (Mount Sapo 1).

<sup>1</sup>There is so much individual variation within the same locality that the discrimination of more than one form in Central America seems impracticable. Birds from the coastal forests of western Veraguas very slightly approach *S. t. furvus*.

Material examined.—Guatemala (Choctum, Los Amates) 4; Manatee Lagoon, British Honduras 5; San Pedro Sula, Honduras 3; Costa Rica 17; Divala, Chiriquí (including the type of *S. v. dunicola*) 2; Cerro Montosa, Veraguas 3; Wilcox Camp, San Lorenzo River, Veraguas 3.

#### <sup>2</sup>*Sapayoa* HARTERT.

Superficially resembling *Schiffornis*, but easily distinguished by much wider, more depressed, distinctly uncinuate bill, with more numerous, stronger as well as more rigid rectal bristles; circular, entirely exposed nostrils; much shorter, slenderer tarsus, with its upper half feathered, etc.

<sup>3</sup>*Sapayoa aenigma* HARTERT: General coloration light olive green, more yellowish green underneath; wings and tail dusky, exteriorly edged with color of back; adult male with a large, semiconcealed yellow crown patch. Wing 81-82, (female) 79-82; tail 61-66, (female) 59; bill 15.

Material examined.—Panama: Mount Sapo 4.—Colombia: Nóvita, Río Tamaná 1, Noanamá, Río San Juan, Chocó 3.—Ecuador: Río Sapayo, prov. Esmeraldas (the type) 1.

Genus **NEOPELMA** Sclater.

*Neopelma* SCLATER, P.Z.S.Lond., 28, p. 467, 1860—type by monotypy *Muscicapa aurifrons* WIED.

**Neopelma aurifrons** (Wied). WIED'S MANAKIN.

*Muscicapa aurifrons* WIED, Beitr. Naturg. Bras., 3, (2), p. 829, 1831—"Camamú, southern Bahia" (type in American Museum of Natural History, New York, examined).

*Muscicapa brevipes* WIED, Beitr. Naturg. Bras., 3, (2), p. 831, 1831—southeastern Brazil (type in American Museum of Natural History, New York, examined; = juv.).

*Muscicapa luteocephala* (not of LESSON, 1830) LAFRESNAYE, Mag. Zool., 3, cl. 2, pl. 13, 1833—no locality given (the type examined in the Paris Museum is from Minas Geraes, coll. A. de Saint-Hilaire); HELLMAYR, Nov. Zool., 13, p. 327, 1906 (crit.).

*Euscarthmus aurifrons* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 489, 1856—"Bahia" (ex WIED).

*Heteropelma aurifrons* SCLATER, P.Z.S.Lond., 28, p. 467, 1860—part, Brazil; PELZELN, Orn. Bras., 2, p. 125, 1868—Ypanemá, São Paulo (spec. examined); idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio.

*Neopelma aurifrons* SCLATER, Cat. B. Brit. Mus., 14, p. 323, 1888—Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 237, 1889 (crit. notes on Wied's types); IHERING, Rev. Mus. Paul., 3, p. 210, 1899—Santo Amaro and Ypiranga, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 304, 1907—Alto da Serra, Itatiba, and Ypiranga, São Paulo; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 28, pl. 1, fig. 9, 1910—southeastern Brazil; HOLT, Bull. Amer. Mus. N.H., 57, p. 309, 1928—Serra do Itatiaya.

Range: Wooded region of southeastern Brazil, from São Paulo north to Rio de Janeiro, southern Minas Geraes, and (according to Wied) even to southern Bahia (Camamú, south of Bahia City).<sup>1</sup>

<sup>1</sup>The type of *M. luteocephala* LAFR. agrees with specimens from Rio and São Paulo. I am not so certain, however, that *M. aurifrons* of Wied is quite the same. The original example courteously lent by Dr. F. M. Chapman has slightly longer wings, a much larger bill, and the upper part of the head distinctly tinged with grayish, which I never noticed in southern specimens. The type of *M. brevipes* is a very young bird, with undeveloped bill, partly in the downy juvenile plumage, without trace of the yellow vertical patch, as has already been pointed out by the late J. A. Allen, and judging from the grayish forehead, I should unhesitatingly refer it to the same form as the type of *M. aurifrons*.

Thirteen specimens (Minas, Rio, São Paulo) measure as follows: wing 65-68, (female) 62-64; tail 58-60, (female) 55-57; bill 10.

Type of *M. aurifrons* Wied: wing 70; tail 56; bill 11.

Material examined.—Bahia: Camamú (type of *M. aurifrons*) 1.—Minas Geraes (type of *M. luteocephala*) 1.—Rio de Janeiro: Nova Friburgo 1.—São Paulo: Ipanemá 9, Victoria 2.—"Brazil" (type of *M. brevipes*) 1.



**\*Neopelma sulphureiventer** (*Hellmayr*).<sup>1</sup> SULPHUR-BELLIED MANAKIN.

*Scotothorus sulphureiventer* HELLMAYR, Verh. Zool. Bot. Ges., 53, pp. 202, 203, 1903—[Villa Bella de] Matto Grosso, Matto Grosso (type) and San Mateo, Bolivia.

*Heteropelma chrysocephalum* PELZELN, Orn. Bras., 2, pp. 125, 185, 1868—part, descr. of supposed jun. and hab. Matto Grosso (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 322, 1888—Matto Grosso; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 27, 1910—Matto Grosso and northern Bolivia.

Range: Southwestern Brazil, in western Matto Grosso (Villa Bella de Matto Grosso), and northern Bolivia (Río San Mateo; Todos Santos, Río Chaparé).

4: Bolivia (Todos Santos, Río Chaparé 4).

**\*Neopelma chrysocephalum** (*Pelzelin*).<sup>2</sup> ORANGE-CRESTED MANAKIN.

*Heteropelma chrysocephalum* PELZELN, Orn. Bras., 2, pp. 125, 185, 1868—part, descr. of adult and hab. San Carlos, Rio Guainia, Venezuela (type), Marabitanas, Rio Negro, and Rio Içanna, Brazil (spec. examined).

*Heteropelma igniceps* SCLATER, P.Z.S.Lond., 1871, p. 750, pub. March, 1872—Oyapoc, "Cayenne"; idem, l.c., 1881, p. 214—Essequibo and Corentyne River, common on the "Rupumini" [=Rupununi] Savannahs, British Guiana; SALVIN, Ibis, 1885, p. 301—Camacusa and Roraima; SCLATER, Cat. B. Brit. Mus., 14, p. 322, pl. 22, 1888—Oyapoc, Essequibo, Camacusa.

*Elaeena aurifrons* (not *Muscicapa aurifrons* WIED) CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 701, 1848—British Guiana.

*Scotothorus chrysocephalus* HELLMAYR, Verh. Zool. Bot. Ges., 53, pp. 202, 203, 1903 (char., syn., range); BERLEPSCH, Nov. Zool., 15, p. 321, 1908 (nomencl.); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 27, pl. 1, fig. 3, 1910—"Cayenne," British Guiana, and upper Rio Negro.

*Scotothorus igniceps* BERLEPSCH, Nov. Zool., 15, p. 139, 1908—Oyapoc, French Guiana.

<sup>1</sup> *Neopelma sulphureiventer* (HELLMAYR): Nearly allied to *N. aurifrons*, and crown patch of the same lemon chrome shade, but somewhat larger, with much stronger feet and bill; upper mandible blackish instead of horn color; under parts much paler and less greenish, being sulphur yellow, tinged with pale grayish olive on throat and chest. Wing 70-74, (female) 66-69; tail 57-61, (female) 54-57; bill 11-12½.

Material examined.—Brazil, Matto Grosso: Villa Bella de Matto Grosso 3.—Bolivia: Todos Santos, Río Chaparé 4, Río San Mateo 1.

<sup>2</sup> *Neopelma chrysocephalum* (PELZELN): Nearly related to *N. sulphureiventer*, but with shorter tail; crown patch much larger and darker, deep cadmium yellow instead of lemon chrome; lateral portions of crown shaded with dark ashy; throat and foreneck paler, more grayish white. Wing (adult males) 67-72; tail 49-54; bill 11-12½.

Material examined.—British Guiana: Camacusa 1, Río Rupununi 9, unspecified 1.—Venezuela: San Carlos, Río Guainia (the type) 1.—Brazil: Río Içanna [=Río Isana] 1, Marabitanas, Rio Negro 1.

*Neopelma chrysocephalum* BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—Lelydorp, Surinam.

*Neopelma chrysocephala* CHUBB, Birds Brit. Guiana, 2, p. 265, 1921—British Guiana (numerous localities).

Range: French, Dutch, and British Guiana; northern Brazil (Rio Içanna [= Rio Isana] and Marabitanas, upper Rio Negro), and extreme southern Venezuela (San Carlos, Río Guainia).

5: British Guiana (Río Rupununi 4, unspecified 1).

**\**Neopelma pallescens* (Lafresnaye).<sup>1</sup> YELLOW-CRESTED MANAKIN.**

*Tyrannula pallescens* LAFRESNAYE, Rev. Mag. Zool., (2), 5, p. 57, 1853—Bahia.

*Heteropelma flavicapillum* SCLATER, P.Z.S.Lond., 28, p. 466, 1860—southeastern Brazil; PELZELN, Orn. Bras., 2, p. 125, 1868—Nas Lages and Rio das Pedras (São Paulo), Goyaz, and Engenho do Cap. Gama, Matto Grosso (spec. examined); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 321—Lagôa Santa, Minas Geraes; SCLATER, Cat. B. Brit. Mus., 14, p. 321, pl. 21, 1888—Bahia and "Rio," Brazil; ALLEN, Bull. Amer. Mus. N.H., 5, p. 109, 1893—Chapada, Matto Grosso.

*Heteropelma chrysocephalum* (lapsu) PELZELN, Orn. Bras., 2, p. 125, 1868—part, São Vicente, Matto Grosso (spec. examined).

*Scotothorus pallescens* HELLMAYR, Verh. Zool. Bot. Ges., 53, pp. 202, 203, 204, 1903 (char., crit., range); IHERING, Cat. Faun. Braz., 1, p. 303, 1907—Bahia (range); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 27, 1910 (range); REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 76, 1910; p. 166, 1925—Cachoeira, Rio Parnahyba, Maranhão, and São Martin, Piahy (spec. examined); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 371, 1914—Serra de Paituna [Monte Alegre] and Maranhão (spec. examined).

*Neopelma pallescens* HELLMAYR, Nov. Zool., 15, p. 55, 1908—Goyaz, Rio Thesouras, and Rio Araguaya, Goyaz; idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 335, 1929—Rosario, Miritiba, and Tranqueira, Maranhão.

Range: Campo region of eastern and central Brazil, from Matto Grosso, northern São Paulo, and Minas Geraes through

<sup>1</sup> *Neopelma pallescens* (LAFRESNAYE) is readily distinguished among its allies by its large size, pale dingy grayish throat and breast, and very pale yellowish abdomen. The vertical crest is bright lemon chrome, as in *N. aurifrons*. Wing 77-83, (female) 72-76; tail 64-70, (female) 61-64; bill 12-13.

Two adults from the Rio Tapajóz (Santarém, Itaituba) agree in coloration and size with specimens from eastern Brazil.

Material examined.—São Paulo: Nas Lages 1, Rio das Pedras 2.—Matto Grosso: Engenho do Gama 1, São Vicente 1.—Goyaz: Goyaz City 7, Rio Thesouras 1, Rio Araguaya 2.—Minas Geraes: Rio das Velhas, near Lagôa Santa 6, Agua Suja, near Bagagem 1, Rio Jordão, near Araguay 1.—Bahia: Santo Amaro 2, unspecified 6.—Piahy: São Martin, Rio Parnahyba 2.—Maranhão: Cachoeira, Rio Parnahyba 1, Tranqueira 3, Miritiba 1, Rosario 1.—Pará: Serra de Paituna, near Monte Alegre 1 (Mus. Goeldi, No. 5966. July 22, 1908. E. Snethlage); Santarém 1; Itaituba, Rio Tapajóz 1.

Goyaz and Bahia north to Piauhý and Maranhão, and even to the lower Amazon (Santarém; Itaituba, Rio Tapajóz; Serra de Paituna, near Monte Alegre).<sup>1</sup>

13: Brazil, Minas Geraes (Rio das Velhas, near Lagôa Santa 6); Bahia (Santo Amaro 2, unspecified 1); Maranhão (Rosario 1, Tranqueira 3).

### Genus **HETEROCERCUS** Sclater.<sup>2</sup>

*Heterocercus* SCLATER, Cat. Coll. Amer. Birds, p. 245, 1862—type by monotypy *Elaenia lineata* STRICKLAND.

### **Heterocercus lineatus** (Strickland).<sup>3</sup> FIRE-CROWNED MANAKIN.

*Elaenia lineata* STRICKLAND, Contrib. Orn., 1850, Illust. Orn., p. 121-15, pl. [63], left fig.—part, descr. of alleged male, "Upper branches of the Amazon River."

*Heterocercus lineatus* SCLATER, Cat. Coll. Amer. Birds, p. 245, 1862—"Upper Amazon"; PELZELN, Orn. Bras., 2, p. 125, 1868—Borba, Rio Madeira (descr. of female; spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 324, 1888—"Upper Amazons"; SNETHLAGE, Journ. Orn., 55, p. 289, 1907—"Monte Alegre"; HELLMAYR, Nov. Zool., 14, p. 362, 1907—Humaythá, Rio Madeira; idem, l.c., 17, p. 312, 1910—Allianca, Rio Madeira, and Maroins, Rio Machados; idem in WYTSMAN, Gen. Av., Part 9, p. 30, 1910 (range); SNETHLAGE, Journ. Orn., 56, p. 504, 1908—Goyana, Ilha do Papageio, Ilha do Coata, and Villa Braga, Rio Tapajóz; idem, l.c., 61, p. 525, 1913—Islands of the Tapajóz, Santa Julia, Rio Iri, and Cussary; idem, Bol. Mus. Goeldi, 8, p. 372, 1914—"Monte Alegre" [=Cussary], Rio Iri (Santa Julia), Rio Jamauchim (Viração), Rio Tapajóz (Goyana, Villa Braga, Papageio, Coata).

*Heterocercus flavivertex* (not of PELZELN) RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém.

*Heterocercus lineatus* TACZANOWSKI, Orn. Pér., 2, p. 351, 1884—part, descr. only (excl. locality "Nauta"); STONE, Proc. Ac. Nat. Sci. Phila., 1899, p. 47 (type in Coll. Mus. Acad. Nat. Sci. Philadelphia).

Range: Northern Brazil, south of the Amazon, from the Xingú west to the Rio Madeira, possibly even to the Javari, south to northern Matto Grosso (Rio Roosevelt).<sup>4</sup>

<sup>1</sup>The locality "Rio de Janeiro," sometimes quoted for this species, is unquestionably erroneous.

<sup>2</sup>Key to the species; HELLMAYR, Nov. Zool., 13, p. 327, 1906.

<sup>3</sup>*Heterocercus lineatus* (STRICKLAND) differs from the other members of the genus by having, in the male sex, the upper part and sides of the head deep black, and the crown patch fiery red instead of yellow or orange. Besides, the upper parts are of a much duller, more brownish olive, which also serves to distinguish the female from the allied species.

Material examined.—Brazil: Goyana, Rio Tapajóz 2; Rio Madeira, Borba 3, Allianca 1, Humaythá 4; Maroins, Rio Machados 5.

<sup>4</sup>The record from "Monte Alegre," north bank of the Amazon, is open to doubt (see Snethlage, Journ. Orn., 61, p. 525, 1913).



***Heterocercus flavivertex* Pelzeln. YELLOW-CROWNED MANAKIN.**

*Heterocercus flavivertex* PELZELN, Orn. Bras., 2, pp. 125, 186, Sept., 1868—Rio Negro, Marabitanas, Rio Xié, Rio Içanna, Rio Vaupé, and Barcellos, Brazil (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 325, 1888—part, spec. a-g, Rio Negro and "Oyapoc, Cayenne"; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 54, 1902—Maipures and Perico, Río Orinoco, Venezuela (spec. examined); BERLEPSCH, l.c., 15, p. 139, 1908—"Oyapoc, Cayenne" (ex SCLATER); HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 30, pl. 1, fig. 6, 1910 (range); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 249, 1916—Maipures and Perico, Río Orinoco.

*Elaenia lineata* STRICKLAND, Contrib. Orn., 1850, Illust. Orn., p. 121-15, pl. [63], right fig.—part, descr. of alleged female, "Upper branches of the Amazon River."

*Heterocercus angosturae* BERLEPSCH and LEVERKÜHN, Orn., 6, p. 19, 1890—"Angostura," Río Orinoco, Venezuela (type in Berlin Museum examined; =female).

Range: Northwestern Brazil, in state of Amazonas (on the Rio Negro, above the junction of the Rio Branco, and its tributaries), and southern Venezuela, on the upper Orinoco (Maipures and Perico).<sup>1</sup>

***Heterocercus aurantiivertex* Sclater and Salvin.<sup>2</sup> ORANGE-CROWNED MANAKIN.**

*Heterocercus aurantiivertex* SCLATER and SALVIN, P.Z.S.Lond., 1880, p. 157—Sarayacu, Ecuador (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 325, pl. 23, 1888—Sarayacu; HELLMAYR in WYTSMAN, Gen. Av., Part 9,

<sup>1</sup>Specimens from the upper Orinoco, including the type of *H. angosturae*, are equally similar to Natterer's original series from the Río Negro.

The locality "Angostura" [=Ciudad Bolívar] is certainly inaccurate, and the occurrence of this species in French Guiana also remains to be confirmed. The five skins in the British Museum, labeled "Oyapoc, Cayenne," were obtained from Madame Verdey, a natural history dealer of Paris, and are quite different in "make" from the ordinary trade skins imported from that colony.

Material examined.—Brazil, Rio Negro: Rio Negro, near the junction of the Rio Branco 2, Marabitanas 5, Barcellos 1; Rio Xié 1; Rio Içanna [=Rio Isana] 1; Rio Vaupé 1.—Venezuela, upper Río Orinoco: Maipures 10, Perico 4, "Angostura" 1.—"Oyapoc, Cayenne" 5.

<sup>2</sup>*Heterocercus aurantiivertex* SCLATER and SALVIN: Adult male (female unknown) nearly related to, and agreeing with, *H. flavivertex* in dark gray sides of head as well as in olive green forehead and lateral portions of crown; but vertical patch bright orange instead of yellow, and breast ochraceous tawny like the abdomen, not chestnut. Wing 87; tail 49-50; bill 13.

This form which, in all probability, is but a western race of *H. flavivertex* is known only from three adult males in the British Museum. A young male from Chamicuros, Peru, agrees with them in pale coloration of under parts, but the few bright feathers just appearing in the middle of the crown are golden yellow, more like *H. flavivertex*. The proper identification of the Peruvian form must be left in abeyance until satisfactory material comes to hand.

Material examined.—Ecuador: Sarayacu (types) 3.—Peru: Chamicuros, (♂) juv., July 27, 1867. E. Bartlett (all in the British Museum).

p. 30, 1910—Sarayacu; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 538, 1926—Sarayacu.

(?) *Heterocercus linteatus* (not of STRICKLAND) SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 284—Chamicuros, Peru (spec. examined).

(?) *Heterocercus lineatus* TACZANOWSKI, Orn. Pér., 2, p. 351, 1884—part, "Nauta" = Chamicuros.

(?) *Heterocercus flavivertex* (not of PELZELN) SCLATER, Cat. B. Brit. Mus., 14, p. 325, 1888—part, spec. h, i, Chamicuros, Peru.

Range: Eastern Ecuador (Sarayacu); (?) northern Peru (Chamicuros).

### ***Heterocercus luteocephalus* (Lesson).<sup>1</sup> GOLDEN-CRESTED MANAKIN.**

*Muscicapa luteocephala* LESSON, Traité d'Orn., p. 392, 1830—locality unknown (type in Paris Museum examined); PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, p. 374, 1855—South America (descr., crit.).

*Heterocercus luteocephalus* HELLMAYR, Nov. Zool., 13, p. 326, 1906 (crit.); BERLEPSCH, l.c., 15, p. 139, 1908—Cayenne?; HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 30, 1910.

Range: South America (exact locality unknown).

## FAMILY COTINGIDAE.

### CHATTERERS.

#### Genus **PHOENICIRCUS** Swainson.<sup>2</sup>

*Phoenicircus* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 491, Feb., 1832—type by subs. desig. (GRAY, List Gen. Birds, p. 33, 1840) *Ampelis carnifex* LINNAEUS.

*Phoenicircus* STRICKLAND, Ann. Mag. Nat. Hist., 7, p. 29, 1841—emendation.

*Phoenicocercus* CABANIS, Arch. Naturg., 13, (1), p. 236, 1847—emendation.

*Phaenicocercus* BONAPARTE, Consp. Av., 1, p. 170, 1850—emendation.

*Carnifex* SUNDEVALL, Vetenskaps Akad. Handl. for 1835, p. 78, 1836—type by monotypy *Ampelis carnifex* LINNAEUS.

<sup>1</sup>*Heterocercus luteocephalus* (LESSON): In coloration much like *Neopelma pallescens*, but lateral portions of pileum, postocular region, hind neck and sides of neck pure ashy gray, instead of mainly light green, and posterior under parts much brighter yellow, more as in *Neopelma chrysocephalum*. Vertical crest bright yellow.

The type (and only known specimen) of this species appears to be different from any Manakin I am acquainted with. Wings and tail being in full molt, the measurements, as published elsewhere (Nov. Zool., 13, p. 326), cannot be relied upon. The rectrices, though not full-grown, distinctly exhibit the peculiar shape and the same proportions as in other species of *Heterocercus*, with which the bird also agrees in shortness of tarsi and structure of bill. More information about this obscure species is much desired.

<sup>2</sup>A genus of doubtful affinity, perhaps more nearly related to the *Rupicolidae* or constituting a family by itself.

**\*Phoenicircus carnifex** (*Linnaeus*). RED CHATTERER.

*Lanius carnifex* LINNAEUS, Syst. Nat., 10th ed., 1, p. 94, 1758—based on "The Red Bird from Surinam" EDWARDS, Nat. Hist. Birds, 1, p. 39, pl. 39, Surinam.

*Cotinga rubra* MERREM, Av. Rar. Icon., Part 1, p. 1, pl. 1, fig. 1 (male), 1784—Surinam.

*Cotinga cuprea* MERREM, Av. Rar. Icon., Part 1, p. 5, pl. 1, fig. 2 (female), 1784—Surinam.

*Ampelis coccinea* GMELIN, Syst. Nat., 1, (2), p. 839, 1789—based on MERREM, Beytr. Bes. Gesch. Vögel, Part 1, p. 6, pl. 1, fig. 2, 1784, Surinam (=female).

*Phoenicocercus carnifex* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 695, 1848—British Guiana; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 439, 1856—Guiana; BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—part, Pará; PELZELN, Orn. Bras., 2, p. 131, 1868—Barra do Rio Negro [=Manáos] and Pará; LAYARD, Ibis, 1873, p. 385—ten miles from Pará; C. B. BROWN, Canoe and Camp Life in Brit. Guiana, p. 40, 1876—Cartoonie, tributary of Puruni River; SALVIN, Ibis, 1885, p. 304—Bartica Grove and Camacusa, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 367, 1888—British Guiana (Camacusa, Bartica Grove, Demerara), Cayenne, Barra do Rio Negro, Pará; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Rivière Carseverme, French Guiana; IHERING and IHERING, Cat. Faun. Braz., 1, p. 312, 1907—range; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará and Ourém, Rio Guamá; idem, l.c., 56, p. 529, 1907—Arumatheua, Rio Tocantins; BERLEPSCH, Nov. Zool., 15, pp. 142, 318, 1908—Cayenne and Carsevenne River, French Guiana; PENARD and PENARD, Vog. Guyana, 2, p. 164, 1910—Surinam; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 354, 1914—Pará, Providencia, Ananindeua, Benevides, Peixe-Boi, Rio Guamá (Ourém), and Rio Tocantins (Arumatheua); CHUBB, Birds Brit. Guiana, 2, p. 291, 1921—numerous localities; YOUNG, Ibis, 1929, p. 233—Plantation Wales, west Bank, Demerara, British Guiana.

*Ampelis carnifex* DESCOURTILZ, Orn. Brés., p. 26, pl. 29, fig. 4, circa 1856—range imaginary.

*Phoenicircus carnifex* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 34, 91, 1912—Ipitinga, Rio Acará (Pará localities); STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Murutucú, Pará.

Range: French, Dutch, and British Guiana, and northern Brazil, on the north bank of the Amazon west to Manáos, south of that river from the Pará region west to the Tapajóz (Santarém; Villa Braga).<sup>1</sup>

<sup>1</sup>A series from Colonia do Mojuy, Santarém, and a couple from Villa Braga, on the left bank of the Tapajóz, in the Carnegie Museum, Pittsburgh, are perfectly identical with Guianan specimens.

Material examined.—French Guiana: Cayenne 3; Tamanoir 12; Pied Saut, Oyapock 1.—Surinam 1.—British Guiana: Groote Creek 1, unspecified 4.—Brazil:



8: British Guiana (Groote Creek 1, unspecified 1); Brazil, state of Pará (Pará 2, Murutucú 1, Providencia 1, Utinga 2).

**\**Phoenicircus nigricollis* Swainson.<sup>1</sup> BLACK-NECKED RED CHATTERER.**

*Ampelis carnifex* (not *Lanius carnifex* LINNAEUS) SPIX, Av. Bras., 2, p. 4, pl. 5, 1825—Rio Negro, near Barcellos, Brazil (spec. in Munich Museum examined).

*Pipra coccinea* (not *Ampelis coccinea* GMELIN) WAGLER, Isis, 1830, p. 938—part, descr. of adult male (ex SPIX) only.

*Phoenicircus nigricollis* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 491, Feb., 1832—based on *Ampelis carnifex* SPIX, Av. Bras., 2, p. 4, pl. 5, Barcellos, Rio Negro.

*Ampelis merremii* LESSON, Rev. Zool., 2, p. 104, 1839—"Perua."

*Phoenicocercus coccineus* (not of GMELIN) BURMEISTER, Syst. Übers. Th. Bras., 2, p. 438, 1856—"Rio Negro bei Barcellona" (sic).

*Phoenicocercus nigricollis* SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 567—Peru; idem, l.c., 1867, p. 751—Xeberos, Peru; PELZELN, Orn. Bras., 2, p. 131, 1868—Borba (Rio Madeira), Rio Negro below Thomar, Cocuy, Marabitanas, and Carvoeiro, Rio Negro (descr. of female); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 285—Sarayacu, Xeberos, Chamicuros, Santa Cruz, and Pebas, Peru; TACZANOWSKI, Orn. Pér., 2, p. 374, 1884—Peruvian localities; SCLATER, Cat. B. Brit. Mus., 14, p. 368, 1888—Pebas, Chamicuros, Loretoyacu, Xeberos, and Santa Cruz (Peru), and Río Copotaza, Ecuador; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 52, 1926—Rio Curuá, Xingú; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 546, 1926—Río Napo, Ecuador.

Pará district (Pará, Murutucú, Providencia, Benevides, etc.) 9; Ipitinga, Rio Acará 4; Obidos 1; Manáos 8; Colonia do Mojuy, Santarém 9; Villa Braga, Rio Tapajóz 2.

<sup>1</sup>*Phoenicircus nigricollis*, as a whole, appears to be the western representative of the Guianan Red Chatterer. North of the Amazon, the latter evidently does not range beyond Manáos, while farther up the Rio Negro, above the junction of the Rio Branco, at Carvoeiro, Barcellos, Thomar, etc., we meet with the Black-necked form which is the only one found along the Rio Madeira and on the banks of the Solimões. However, on the lower Tapajóz both species *P. carnifex* and *P. nigricollis* seem to occur. The Carnegie Museum, Pittsburgh, has a perfectly typical female of *nigricollis*, collected by S. M. Klages at Villa Braga on November 28, 1919 (C. M., No. 75136), while another female secured at the same locality on December 19, 1919 (C. M., No. 75819) and an adult male are undoubtedly referable to *P. carnifex*. Again, on the right bank of the Tapajóz the same collector obtained no less than nine specimens, including adults of both sexes and an immature male, of *P. carnifex* at Colonia do Mojuy, Santarém, whereas farther up the river at Miritituba (opposite Itaituba) an adult male and two females of *P. nigricollis*, apparently inseparable from Upper-Amazonian specimens, were taken. Further researches are required to show whether the western form is of regular occurrence in the Tapajóz Valley. In the meantime, it seems advisable to maintain the specific distinctness of the Red Chatterers.

Material examined.—Brazil: Miritituba, Rio Tapajóz 3; Villa Braga, Rio Tapajóz 1; Rio Negro, Carvoeiro 1, Barcellos (the type) 1, below Thomar 1, Cocuy 1; Manacapurú, Rio Solimões 3; Tonantins, Rio Solimões 3; Rio Madeira, Calama 1, Borba 2.—Peru: Chamicuros 3.—Ecuador: Río Copotaza 1, Río Pastasa 1.

*Phoenicocercus carnifex* SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—part, Guía, Rio Negro.

*Phoenicocercus nigrigularis* SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 978—Pebas, Peru.

*Phoenicircus nigricollis* ALLEN, Bull. Amer. Mus. N.H., 2, p. 74, 1889—Rio Napo; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 639, 1906—note on type; idem, Nov. Zool., 17, p. 316, 1910—Calama, Rio Madeira.

Range: Northern Brazil (east to the junction of the Rio Negro and Rio Branco, south of the Amazon to the Rio Tapajóz), eastern Peru (dept. Loreto), and eastern Ecuador.

1: Amazonia (unspecified 1).

### Genus LANIISOMA Swainson.

*Laniisoma* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 492, Feb., 1832 (generic characters; the type species "*Lanius arcuatus*, Mus. Paris" is a nomen nudum here, and was not described until a year later).

*Ptilochloris* SWAINSON, Classif. Birds, 2, p. 250, 1837—type by monotypy "*P. lunatus* North. Zool., 2, p. 492. Braz. B. pl. 95."<sup>1</sup>

### *Laniisoma elegans* (Thunberg). SHRIKE-LIKE CHATTERER.

*Ampelis elegans* THUNBERG,<sup>2</sup> Dissert. Tullberg Nov. Spec. Ampelis, p. 2, 1823—Brazil, coll. Freyreiss (types in Upsala Museum examined; descr. of immature male and female).

*Muscicapa squamata* WIED, Beitr. Naturg. Bras., 3, (2), p. 814, 1831—south-eastern Brazil (descr. of female).

*Lanius arcuatus* (GEOFFROY SAINT-HILAIRE MS.) LAFRESNAYE, Mag. Zool., 2, cl. 2, pl. 12, 1833—"du Brésil . . . rapportée au Muséum par Lalande" = Rio de Janeiro (descr. of immature male).

*Ptilochloris arcuatus* LAFRESNAYE, Rev. Zool., 1, p. 237, 1838 (descr. of immature male).

<sup>1</sup>Evidently a new name for *Laniisoma*, "*P. lunatus*" being an obvious misprint for *arcuatus*. Plate 95 (of the "Birds of Brazil and Mexico") referred to by Swainson was never issued.

<sup>2</sup>Through the good offices of Count Nils Gyldenstolpe, I have been enabled to examine the types preserved in the Upsala Museum. The male is a bird in change of plumage, the pileum being still partly covered with the fluffy ochraceous-buff black-tipped feathers of the juvenile dress (referred to by Thunberg as "*crista capitis erecta et cervice flava*"), traces of which are also to be found on the upper back and rump. The greater upper wing coverts, likewise retained from the juvenile plumage, are dusky, broadly tipped with ochraceous tawny ("*alae subfasciatae e maculis brunneis*") and apically narrowly edged with blackish. The female, in adult dress with plain greenish wing coverts, does not differ from other examples of the same sex. Thunberg's statement "*cauda rotundata, alis paullo longior*" is an obvious pen-slip, as may be seen from the appended measurements of the types.

Male: Wing 101; tail 60; bill 16.

Female: wing 100; tail 63; bill 17.

*Ptilochloris remigialis* LAFRESNAYE, Rev. Zool., 1, p. 237, 1838—no locality stated (type now in Mus. Comp. Zool. Cambridge examined; = adult male); idem, l.c., 10, pp. 183, 184, 1847 (crit.).

*Ptilochloris squamata* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 435, 1856—Brazil (ex WIED); PELZELN, Orn. Bras., 2, p. 126, 1868—Ypanemá, São Paulo; SCLATER, Cat. B. Brit. Mus., 14, p. 317, 1888—Bahia and "Novo" Friburgo, Brazil;<sup>1</sup> ALLEN, Bull. Amer. Mus. N.H., 2, p. 240, 1889 (Wied's type no longer in American Museum); IHERING, Rev. Mus. Paul., 3, p. 209, 1899—São Paulo; idem, l.c., 4, p. 156, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 302, 1907—Piracicaba, São Sebastião and Itapura, São Paulo.

*Ampelis arcuata* DESCOURTILZ, Orn. Brés., p. 26, pl. 29, fig. 3, (mas imm.), circa 1855—from the Corcovado, Rio de Janeiro, "to Matto-Grosso" (errore).

*Laniisoma squamatum* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 29, pl. 1, fig. 10, 1910—southeastern Brazil.

Range: Wooded region of southeastern Brazil, from southern Bahia to São Paulo.<sup>2</sup>

***Laniisoma buckleyi* (Sclater and Salvin).<sup>3</sup> BUCKLEY'S SHRIKE-LIKE CHATTERER.**

*Ptilochloris buckleyi* SCLATER and SALVIN, P.Z.S.Lond., 1880, p. 158, pl. 16—Pindo, eastern Ecuador (descr. of female and pullus); SCLATER, Cat. B. Brit. Mus., 14, p. 318, 1888—Pindo.

*Laniisoma arcuatum* (not of LAFRESNAYE) SCLATER, P.Z.S.Lond., 22, p. 114, 1854—Quijos, Ecuador.

*Laniisoma buckleyi* HELLMAYR in WYTSMAN, Gen. Av., Part 9, p. 29, 1910—eastern Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 538, 1926—eastern Ecuador.

Range: Eastern Ecuador (Pindo; Archidona; Quijos).

<sup>1</sup>The localities "Río Napo" and "Bogotá" are doubtless erroneous.

<sup>2</sup>Birds from various parts of southern Brazil agree well together. Adult males have the pileum coal black, the wings coverts plain olive green, and the fourth primary strongly attenuated on the apical portion of the inner web, while the three outer remiges, though of normal width, are somewhat pointed at the tip. The female, besides lacking the modification of the primaries, differs by reason of the less elongated crown feathers being mainly dull green, apically edged with sooty, and the much more heavily marked under parts. The type of *P. remigialis*, courteously lent by Mr. Outram Bangs, has fewer olive blackish bars underneath, and is slightly smaller (wing 100, against 102-106; tail 63, against 65-69) than four other adult males examined by me.

Material examined.—Bahia 3; Nova Friburgo, Rio 1; Rio 1; Ipanemá, São Paulo 1; "Brazil" (types of *A. elegans*) 2; unspecified (type of *P. remigialis*) 1.

<sup>3</sup>*Laniisoma buckleyi* (SCLATER and SALVIN) is known from only two females and two nestlings. The female differs from the same sex of *L. elegans* by its more greenish crown, the blackish tips being barely suggested by slight dusky edges and deeper yellow under parts, with coarser as well as more numerous blackish markings. Until the male is discovered, the proper status of this form cannot be ascertained.—Wing (female) 98; tail 62; bill 17.

Material examined.—Ecuador: Pindo (including the type) 3; Archidona (U.S. National Museum, No. 55346. W. Orton) 1.



Genus **PHIBALURA** Vieillot.

*Phibalura* VIEILLOT, Analyse Nouv. Orn. Élé., p. 31, 1816—type by monotypy *Phibalura flavirostris* VIEILLOT.

*Chelidis* GLOGER in FRORIEP's Notizen Geb. Natur- und Heilkunde, 16, p. 278, 1827—new name for *Phibalura* VIEILLOT.

*Amphibolura* CABANIS, Arch. Naturg., 13, (1), p. 233, 1847—new name for *Phibalura* VIEILLOT.

*Dicranura* VAN DER HOEVEN, Handb. Dierk., 3rd ed., 2, p. 733, 1859—new name for *Phibalura* VIEILLOT.

*Psaliurus* BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 105, 1901—type by monotypy *Psaliurus acevalianus* BERTONI = *Phibalura flavirostris* VIEILLOT.

**\*Phibalura flavirostris** Vieillot. SWALLOW-TAILED CHATTERER.

*Phibalura flavirostris* VIEILLOT, Analyse Nouv. Orn. Élé., p. 68, 1816—Brazil; TEMMINCK, Nouv. Rec. Pl. Col., livr. 20, pl. 118, 1822—São Paulo; VIEILLOT (and OUDART), Galerie Ois., 1, (2), p. 97, pl. 74, 1823—Brazil; DESCOURTILZ, Orn. Brés., p. 23, pl. 25, fig. 1, 1855—Brazil (habits); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 433, 1856—Nova Friburgo, Rio; PELZELN, Orn. Bras., 2, p. 131, 1868—Rio de Janeiro, Taipa, Mugy das Cruzes, and Campo Largo, São Paulo; SCLATER, Cat. B. Brit. Mus., 14, p. 372, 1888—"Novo" Friburgo, São Paulo, Rio Claro, "Goyaz," Brazil; BOUCARD and BERLEPSCH, The Humming Bird, 2, p. 45, 1892—Porto Real, Rio; GOELDI, Ibis, 1894, p. 484—Serra dos Orgãos, Rio de Janeiro (nesting habits and eggs descr.); IHERING, Annuario Est. Rio Grande do Sul, 16, p. 127, 1899—Colonia de São Lourenço, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 215, 1899—São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 312, 1907—Alto da Serra, Rincão, Itararé, and Campos de Jordão, São Paulo; MIRANDA RIBEIRO, Arch. Mus. Nac. Rio de Janeiro, 13, p. 183, 1906—Monte Serrat, Itatiaya; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 313, 1910—Misiones; DABBENE, Bol. Soc. Physis, 1, p. 349, 1914—Paraguay and Misiones; BERTONI, Anal. Soc. Cient. Arg., 75, p. 94, 1913—northern Misiones; idem, Faun. Parag., p. 58, 1914—Alto Paraná; MIRANDA RIBEIRO, Arch. Mus. Nac. Rio de Janeiro, 24, pp. 254, 262, 1923—Itatiaya; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 178, 1926—Fazenda Zawadzki and Cândido de Abreu, Paraná; CHAPMAN, Auk, 43, p. 99, 1926—Atten, near Apolobamba, Bolivia; HOLT, Bull. Amer. Mus. N.H., 57, p. 310, 1928—Monte Serrat, Itatiaya.

*Phibalura cristata* SWAINSON, Zool. Illust., 1, pl. 31, March, 1821—South America.

*Pipra forficata* THUNBERG, Mém. Ac. Sci. St. Pétersb., 8, p. 284, pl. 7, fig. 2, 1822—Rio de Janeiro, Brazil.

*Pipra chrysopogon* WAGLER, Isis, 1830, p. 930—new name for *Phibalura flavirostris* VIEILLOT.

*Psaliurus acevalianus* BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 105, 1901—Alto Paraná, Paraguay.

Range: Wooded region of southeastern Brazil, from Rio de Janeiro to Paraná, accidentally in Rio Grande do Sul, and adjacent districts of Paraguay and Misiones (Alto Paraná)<sup>1</sup>; also recorded from Bolivia (Atten, near Apolobamba, dept. La Paz).<sup>2</sup>

3: Brazil, Rio de Janeiro (Therezopolis 1, Itatiaya 1, Porto Real 1).

### Genus **HELIOCHERA** Filippi.

*Heliocera* FILIPPI, Mus. Mediol., No. 1, Animalia Vertebrata. Classis 2, (Aves), pp. 12, 31, March, 1847—type by monotypy *Ampelis rubrocristata* LAFRESNAYE and D'ORBIGNY.

*Heliocera* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 520—emendation.

*Heliocera* MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B64, 1911—emendation.

### \**Heliocera rubro-cristata* (Lafresnaye and d'Orbigny). RED-CRESTED CHATTERER.

*A(mpelis) rubro-cristata* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 39, 1837—Ayupaya and Yungas, Bolivia (types in Paris Museum examined; descr. of adult and young); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 297, pl. 31, fig. 1, 1839—Chupé, prov. Yungas, and Palca, prov. Ayupaya, Bolivia.

*Ampelis rufocristata* BOISSONNEAU, Rev. Zool., 3, p. 3, 1840—Santa Fé de Bogotá.

*Ampelion rubricristatus* SCLATER, P.Z.S.Lond., 23, p. 152, 1855—Bogotá.

*Carpornis rubrocristata* JARDINE, New Edinb. Philos. Journ., (n.s.), 6, p. 91, 1856—eastern Cordillera of Ecuador.

*Ampelion rubrocristatus* SCLATER, P.Z.S.Lond., 26, p. 553, 1858—Matos and Titiacun, Ecuador; idem, l.c., 28, p. 78, 1860—Lloa; idem, l.c., p. 89, 1860—Calacali and above Puellaró, Ecuador.

*Heliocera rubrocristata* SCLATER and SALVIN, P.Z.S.Lond., 1870, p. 781—Páramos of Culata and Mérida, Venezuela; WYATT, Ibis, 1871, p. 334—Pamplona Road and Páramo above Vetas, Santander, Colombia; TACZANOWSKI, P.Z.S.Lond., 1874, p. 540—Maraynioc, Peru; SCLATER and SALVIN, l.c., 1874, p. 678—Ccachupata, dept. Cuzco, Peru; TACZANOWSKI, l.c., 1879, p. 237—Montaña de Palto, near Tambillo, Peru; SCLATER and SALVIN, l.c., 1879, p. 618—Yungas and Ayupaya, Bolivia; TACZANOWSKI, l.c., 1880, p. 203—Cutervo, Peru; idem, Orn. Pér., 2, p. 381, 1884—Peruvian localities; BERLEPSCH and TACZANOWSKI, P.Z.S.Lond., 1884, p. 298—Cechce, Ecuador; idem, l.c., 1885, p. 93—San Rafael, Ecuador; SCLATER, Cat. B. Brit. Mus., 14, p. 390, 1888—Bogotá, Sierra Nevada de

<sup>1</sup>Material examined.—Rio de Janeiro 2, Porto Real 1, Therezopolis 1, Colonia Alpina, Serra dos Orgãos 6, Itatiaya 1; São Paulo, Mugy das Cruzes 1, Campo Largo 2.

<sup>2</sup>Bolivian birds may prove to be separable when additional material comes to hand.

Santa Marta, Medellín, Santa Elena, San Lucas, Matos, "Yauayacu," Quito; SALVIN, Nov. Zool., 2, p. 13, 1895—Cajabamba, Peru; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Maraynioc, Peru; HARTERT, Nov. Zool., 5, p. 490, 1898—Cayambe Mountain, Ecuador; BANGS, Proc. Biol. Soc. Wash., 13, p. 98, 1898—Páramo de Chiruqua and Páramo de Macutana, Santa Marta Mts., Colombia; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 17, 1899—Huaca, Pun, Chaupi (Páramo of Illiniza), Nanegal, Pelagallo, Pichincha, Frutillas, Lloa, and Papallacta, Ecuador; ALLEN, Bull. Amer. Mus. N.H., 13, p. 152, 1900—Santa Marta region; GOODFELLOW, Ibis, 1901, p. 714—Pichincha and Papallacta, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 499, 1917—Paramillo, coast range west of Popayán, Valle de las Pappas, Laguneta, Santa Isabel, El Piñon, Colombia; idem, l.c., 55, p. 552, 1926—Yanacocha, Chical, Taraguacocha, San Bartolo, Salvias, Oyacachi, Papallacta, and upper Sumaco, Ecuador; idem, Bull. U.S. Nat. Mus., 117, p. 101, 1921—Cedrobamba, Occobamba Valley, and Lucma, Urubamba region, Peru; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 332, 1922—Cerro de Caracas, Macotama, Páramo de Mamarongo, and Páramo de Chiruqua, Santa Marta region, Colombia; HELLMAYR, Nov. Zool., 32, p. 12, 1925—Bolivia (note on types); BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Pilon, Ecuador.

*Heliochaera rubrocristata* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 520—Santa Elena, Colombia.

*Heliochoera rubrocristata* MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B64, 1911—Frutillas and Chambo, Ecuador.

*Heliochera rubricristata* PIGUET, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Angelopolis, near Medellín, Colombia; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 76, 1922—below Lloa, Ecuador.

Range: Temperate Zone of the Andes from extreme northern Colombia (Santa Marta range) and southwestern Venezuela (states of Táchira and Mérida) south through Ecuador and Peru to western Bolivia.<sup>1</sup>

21: Venezuela (Páramo de Tamá, Táchira 2; Escorial, near Mérida 1; Culata, Mérida 1); Colombia (Bogotá 3; Paramillo, Western Andes, Antioquia 1); Ecuador (Chical, province Cañar 4); Peru (Molinopampa 1; mountains east of Balsas 2; Huánuco Mountains 5; Pano Mountains, Huánuco 1).

*Heliochera rufaxilla rufaxilla* (Tschudi). TSCHUDI'S CHATTERER.

*Ampelis rufaxilla* TSCHUDI, Arch. Naturg., 10, (1), p. 270, 1844—Peru; idem, Untersuch. Faun. Peru., Aves, pl. 7, fig. 1, 1846.

*Ampelion rufaxilla* TSCHUDI, Untersuch. Faun. Peru., Aves, p. 137, 1846—"Montañas des mittleren Peru," we suggest Vitoc Valley, dept. Junín.

<sup>1</sup>Examination of more than one hundred specimens covering the whole range except the Santa Marta region fails to reveal any racial variation in this widespread species.



*Heliochera rufaxilla* TACZANOWSKI, P.Z.S.Lond., 1879, p. 237—Tambillo; idem, l.c., 1882, p. 24—Tamiapampa; idem, Orn. Pér., 2, p. 383, 1884—Tambillo, Tamiapampa; SCLATER, Cat. B. Brit. Mus., 14, p. 391, 1888—part, Peru; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Garita del Sol, Vitoc, dept. Junín; BANGS and NOBLE, Auk, 35, p. 450, 1918—Tabaconas, northern Peru.

*Heliochera rufaxilla rufaxilla* CHAPMAN, Amer. Mus. Novit., 138, p. 8, 1924—Chaupe, northeast of Huancabamba, Peru.

Range: Subtropical Zone of Peru, from dept. of Cajamarca (Chaupe, near Huancabamba; Tabaconas; Tambillo; Tamiapampa) south to Junín (Vitoc Valley).<sup>1</sup>

***Heliochera rufaxilla antioquiae* Chapman.<sup>2</sup> ANTIOQUIA CHATTERER.**

*Heliochera rufaxilla antioquiae* CHAPMAN, Amer. Mus. Novit., 138, p. 8, 1924—Santa Elena, Antioquia, Colombia.

*Heliochaera rufaxilla* (not of TSCHUDI) SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 520—Santa Elena and "Bogotá."<sup>3</sup>

*Heliochera rufaxilla* SCLATER, Cat. B. Brit. Mus., 14, p. 391, 1888—part, Santa Elena, Retiro, Medellín, and Antioquia, Colombia; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 500, 1917—San Antonio, Cerro Munchique, and Santa Elena, Colombia.

Range: Subtropical Zone of the Western and Central Andes of Colombia.

**Genus DOLIORNIS Taczanowski.**

*Doliornis* TACZANOWSKI, P.Z.S.Lond., 1874, p. 135—type by monotypy  
*Doliornis sclateri* TACZANOWSKI.

***Doliornis sclateri* Taczanowski. SCLATER'S CHATTERER.**

*Doliornis sclateri* TACZANOWSKI, P.Z.S.Lond., 1874, p. 136, pl. 20—Maraynioc, Peru; idem, l.c., p. 541—Maraynioc; idem, Orn. Pér., 2, p. 384, 1884—Maraynioc; SCLATER, Cat. B. Brit. Mus., 14, p. 390, 1888—Maraynioc.

Range: Temperate Zone of central Peru (Maraynioc, dept. Junín).<sup>4</sup>

<sup>1</sup>Material examined.—Peru: Tamiapampa 1, Garita del Sol, Vitoc 1.

<sup>2</sup>*Heliochera rufaxilla antioquiae* CHAPMAN: Very similar to *H. r. rufaxilla*, but larger and more heavily streaked underneath. Wing 122-124, (female) 120; tail 82-84, (female) 78; bill 18-19.

Material examined.—Colombia: Santa Elena 2, Retiro 1.

<sup>3</sup>The specimen which I have examined in the Paris Museum is by no means from "Bogotá." It was in a small collection sent by M. Triana containing among other things the type of *Capito quinticolor* and, though no locality is specified on the label, it doubtless came from the Western Cordillera.

<sup>4</sup>Material examined.—Peru: Maraynioc (including the type) 2.

Genus **TIJUCA** Férussac.

*Tijuca* FÉRUSSAC, Bull. Sci. Nat., 19, for Nov.-Dec., p. 324, 1829—type by monotypy *Tijuca atra* "LESSON"; LESSON, Cent. Zool., livr. 1, p. 30, March, 1830—type by monotypy *Tijuca nigra* LESSON.

*Chrysopteryx* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 492, Feb., 1832—type by orig. desig. *Chrysopteryx erythrorhynchus* SWAINSON = *Tijuca atra* FÉRUSSAC.

**\*Tijuca atra** Férussac. **TIJUCA.**

*Tijuca atra* (LESSON MS.) FÉRUSSAC, Bull. Sci. Nat., 19, for Nov.-Dec., p. 324, 1829—"intérieur du Brésil."

*Tijuca nigra* LESSON, Cent. Zool., livr. 1, p. 31, pl. 6 (male), March, 1830—"intérieur du Brésil"; PELZELN, Orn. Bras., 2, p. 132, 1868—"Bahia"; SCLATER, Cat. B. Brit. Mus., 14, p. 373, 1888—"Novo" Friburgo, Brazil; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 313, 1907—"Santa Catharina to Rio de Janeiro and Bahia"; HOLT, Bull. Amer. Mus. N. H., 57, p. 310, 1928—Serra do Itatiaya (song).

*Chrysopteryx erythrorhynchus* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 492, Feb., 1832—interior of Brazil (descr. of male and female).

*Ampelis chrysoptera* NORDMANN in ERMAN's Reise, Naturhist. Atlas, p. 15, pl. 10, fig. 1, 1835—Brazil (descr. of adult and immature male); DESCOURTILZ, Orn. Brés., p. 25, pl. 28, fig. 1, circa 1855—"les serras de l'intérieur du Brésil" (habits).

*Ptilochloris chrysoptera* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 435, 1856—"der mehr den südlichen Gegenden (St. Paulo, St. Catharina) angehört" (errore).

Range: Mountain ranges of southeastern Brazil, in state of Rio de Janeiro (Nova Friburgo; Petropolis; Therezopolis; Colonia Alpina, Serra dos Orgãos; Serra do Itatiaya) and adjacent section of Minas Geraes (São Francisco).<sup>1</sup>

1: Brazil (Therezopolis 1).

Genus **AMPELION** Cabanis.

*Ampelion* CABANIS in TSCHUDI, Faun. Peru., Aves, p. 137, 1846—type by subs. desig. (GRAY, Cat. Gen. and Subgen. Birds, p. 56, 1855)<sup>2</sup> "*Ampelis*" [= *Procnias*] *cucullata* SWAINSON.

<sup>1</sup>No reliable record exists for any locality outside the area circumscribed above.

Material examined.—Rio de Janeiro: Macieiras, Serra do Itatiaya 1 (U.S. Nat. Museum); Colonia Alpina, Serra dos Orgãos 15 (E. A. Goeldi coll., Zoological Museum, Berne, Switzerland); Petropolis 1 (adult male, May 3, 1886. J. Young. Tring Museum); Therezopolis 1; "Rio" trade skins 3.—Minas Geraes: São Francisco, alt. 1580 meters, 1 (adult male, March 30, 1901. A. Robert. Tring Museum).

<sup>2</sup>In the Appendix of the same work (p. 147) Gray selected *Ampelis rubrocrissata* LAFRESNAYE and D'ORBIGNY, the other species originally included in the

*Carpornis* GRAY (and MITCHELL), Genera Birds, 1, p. 279, Dec., 1846—type by subs. design. (GRAY, Cat. Gen. and Subgen. Birds, p. 147, 1855) "*Ampelis*" [= *Procnias*] *melanocephala* SWAINSON.

*Ampelio* CABANIS and HEINE, Mus. Hein., 2, p. 104, 1859—emendation for *Ampelion* CABANIS.

\**Ampelion cucullatus* (Swainson). HOODED BERRY-EATER.

*Procnias cucullata* SWAINSON, Zool. Illustr., 1, pl. 37, April, 1821—Brazil (descr. of adult male).

*Ampelis cucullata* TEMMINCK, Nouv. Rec. Pl. Col., livr. 61, pl. 363 (=adult male), 1825—Brazil; DESCOURTILZ, Orn. Brés., p. 26, pl. 29, fig. 2, circa 1855—Brazil (habits).

*Ampelion cucullatus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 432, 1856—Nova Friburgo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 374, 1888—Rio, "Novo" Friburgo, São Paulo, Rio Claro, "Goyaz," Pelotas and Lagôa dos Patos, Rio Grande do Sul; IHERING, Annuario Est. Rio Grande do Sul, 16, p. 127, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 216, 1899—Iguapé and Ypiranga, São Paulo; idem, l.c., 4, p. 156, 1900—Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 313, 1907—Santo Amaro, Ubatuba, Alto da Serra, and Iguapé, São Paulo; HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 139, 1915—Braço do Sul, near Victoria, Espírito Santo (descr. of female).

*Ampelio cucullatus* PELZELN, Orn. Bras., 2, p. 132, 1868—Campo Largo and Rio Grande, near São Paulo (descr. of female); HAMILTON, Ibis, 1871, p. 306—Serra do Mar, São Paulo; BERLEPSCH, Journ. Orn., 21, p. 266, 1873—Blumenau, Santa Catharina; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 140, 1885—Taquara do Mundo Novo and Arroio Grande, Rio Grande do Sul.

Range: Wooded region of southeastern Brazil, from Espírito Santo south to Rio Grande do Sul.<sup>1</sup>

1: Brazil (Rio 1).

*Ampelion melanocephalus* (Wied). BLACK-HEADED BERRY-EATER.

*Procnias melanocephalus* WIED, Reise Bras., 1, p. 168 (8vo ed., p. 166), 1820—Quartel das Barreiras, road from the Rio Itapémirim to the Rio Itabapua, southern Espírito Santo; SWAINSON, Zool. Illustr., 1, pl. 25, Feb., 1821—forests of Pitanga, Bahia (descr. of male).

*Turdus melanocephalus* VIEILLLOT, Tabl. Enc. Meth., Orn., 2, p. 647, 1822—"Brésil," coll. Delalande; PUCHERAN, Arch. Mus. Hist. Nat., 7, livr. 3, p. 351, 1855 (crit.).

genus *Ampelion*, but under the rules there is no justification in reversing his earlier action.

<sup>1</sup>Material examined.—Braço do Sul, Espírito Santo 1; Nova Friburgo, Rio 2; Campo Largo, São Paulo 1; Rio Grande, near São Paulo City 2; Santa Catharina (Aguas Pretas, Serra do Mirador, Laguna, Blumenau) 6; Taquara do Mundo Novo, Rio Grande do Sul 7.



*Ampelis viridis* THUNBERG,<sup>1</sup> Dissert. Tullberg *Ampelis* Nov. Spec., p. 4, 1823—Brazil, coll. Freyreiss.

*Ampelis melanocephala* WIED, Beitr. Naturg. Bras., 3, (1), p. 401, 1830—Das Barreiras, Espirito Santo.

*Ampelio(n) melanocephalus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 432, 1856—Nova Friburgo, Rio; PELZELN, Orn. Bras., 2, p. 132, 1868—Bahia; SCLATER, Cat. B. Brit. Mus., 14, p. 374, 1888—Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 241, 1889—note on Wied's type; IHERING, Rev. Mus. Paul., 3, p. 216, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 156, 1900—Nova Friburgo, Rio; idem, l.c., p. 240, 1900—São Paulo (egg descr.); idem, Cat. Faun. Braz., 1, p. 313, 1907—Alto da Serra and Iguapé, São Paulo, and Rio Doce, Espirito Santo; LIMA, Rev. Mus Paul., 12, (2), p. 100, 1920—southern Bahia.

Range: Wooded region of southeastern Brazil, from southern Bahia to São Paulo.<sup>2</sup>

### Genus PORPHYROLAEMA<sup>3</sup> Bonaparte.

*Porphyrolaema* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 315 (=Consp. Voluc. Anisod., p. 5), 1854—type by monotypy *Cotinga porphyrolaema* DEVILLE and SCLATER.

### *Porphyrolaema porphyrolaema* (Deville and Sclater). PURPLE-THROATED COTINGA.

*Cotinga porphyrolaema* DEVILLE and SCLATER, Rev. Mag. Zool., (2), 4, p. 226, 1852—Sarayacu, Río Ucayali, Peru (type in Paris Museum examined); SCLATER, Contrib. Orn., 1852, p. 136, pl. 96—Sarayacu; SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 191—Sarayacu; idem, l.c., 1873, p. 285—Sarayacu, Ucayali; idem, l.c., 1880, p. 155—Sarayacu, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 386, 1884—Sarayacu, Ucayali; SCLATER, Cat. B. Brit. Mus., 14, p. 386, 1888—River Ucayali and Samiria, Peru, and Sarayacu, Ecuador; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 357, 1914 (range); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 551, 1926—eastern Ecuador.

*Porphyrolaema phygas* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 315 (=Consp. Voluc. Anisod., p. 5), 1854—new name for *Cotinga porphyrolaema* DEVILLE and SCLATER.

*Cotinga (Ampelis) porphyrolaema* DES MURS in CASTELNAU, Expéd. Amér. Sud, Ois., p. 65, 1856—Sarayacu, Peru.

Range: Eastern Ecuador, northeastern Peru (lower Marañón and Ucayali River), and western Brazil (Rio Purús).<sup>4</sup>

<sup>1</sup>Except for the obvious lapsus "cauda . . . alis multo longior," Thunberg's description corresponds to the characters of *A. melanocephalus*. I am informed by Count Gyldenstolpe that the types are no longer to be found in the Upsala Museum.

<sup>2</sup>Material examined.—Bahia 3; "Rio de Janeiro" 1; Iguapé, São Paulo 1.

<sup>3</sup>*Porphyrolaema* is easily separable from *Cotinga* by its much larger (more swollen as well as basally wider) bill and nearly square (not emarginate) tail.

<sup>4</sup>Material examined.—Ecuador: Sarayacu 2.—Peru: Sarayacu (including the type) 2, Samiria 1.—Brazil: Arimã, Rio Purús 14.

Genus **COTINGA** Brisson.

*Cotinga* BRISSON, Ornith., 2, p. 339, 1760—type by tautonymy "*Cotinga*" BRISSON = *Ampelis cotinga* LINNAEUS.

*Ampelis* LINNAEUS, Syst. Nat., 12th ed., 1, p. 297, 1766—type by subs. desig. (Gray, List Gen. Birds, p. 34, 1840) *Ampelis cotinga* LINNAEUS.

*Hylocosmia* SUNDEVALL, Meth. Nat. Av. Disp. Tent., p. 62, 1872—new name for *Cotinga* BRISSON.

**\*Cotinga cotinga (Linnaeus).** PURPLE-BREASTED COTINGA.

*Ampelis cotinga* LINNAEUS, Syst. Nat., 12th ed., 1, p. 298, 1766—based on "Le Cotinga" BRISSON (Orn., 2, p. 340, pl. 34, fig. 1, 1760), "Brésil"; DESCOURTILZ, Orn. Brés., p. 25, pl. 28, fig. 3, circa 1856—range imaginary; CABANIS and HEINE, Mus. Hein., 2, p. 105, 1859—Guiana; BATES, Naturalist on the Amazons, 1, p. 119, 1863—Vista Alegre, above Cametá, Rio Tocantins.

*Ampelis caerulea* VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 760, 1822—based on "Le Cotinga" BRISSON and "Cotinga du Brésil" BUFFON, Brazil and Cayenne; idem (and Oudart), Galerie Ois., 1, (2), p. 183, pl. 116, 1823—Cayenne and Surinam; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 693, 1848—Demerara.

*Cotinga coelestis* GRAY, List Gen. Birds, 2nd ed., p. 46, 1841—new name for *Ampelis cotinga* LINNAEUS (excl. ref. DAUBENTON, Pl. Enl. 188).

*Cotinga caerulea* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—near Pará; PELZELN, Orn. Bras., 2, p. 132, 1868—Cachoeira do Rio Xié, Rio Vaupé, Rio Negro, Barra do Rio Negro [= Manáos], Pará; SALVIN, Ibis, 1885, p. 304—Bartica Grove and Atapurow River, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 382, 1888—Cayenne, Bartica Grove, Atapurow River, Carimang River; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará; PENARD and PENARD, Vog. Guyana, 2, p. 158, 1910—Surinam.

*Cotinga cotinga* IHERING and IHERING, Cat. Faun. Braz., 1, p. 313, 1907—range; BERLEPSCH, Nov. Zool., 15, p. 142, 1908—Cayenne; HELLMAYR, Abhandl. Math.-phys. Kl. Bayr. Ak. Wiss., 26, No. 2, p. 91, 1912—Pará; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 356, 1914—Pará and Providencia Pará district; CHUBB, Birds Brit. Guiana, 2, p. 299, 1921—numerous localities.

Range: French, Dutch, and British Guiana, and northern Brazil (Rio Negro, from Manáos up to the Vaupé and Xié rivers; Pará and vicinity; Santarém, Rio Tapajóz).

3: British Guiana (Mazaruni River 2; unspecified 1).

**\*Cotinga maculata (Müller).<sup>1</sup>** BANDED COTINGA.

<sup>1</sup>*Cotinga maculata* (MÜLLER) is probably conspecific with, and appears to replace, *C. cotinga* in eastern Brazil. Its range, however, is very imperfectly known, and unacquainted with the female as I am, I provisionally accord it full specific rank.

Material examined.—Brazil: Bahia 4, "Rio de Janeiro" 2.

*Ampelis maculatus* P. L. S. MÜLLER, Natursyst., Suppl., p. 147, 1776—based on "BUFFON" [=DAUBENTON, Pl. Enl. 188] and EDWARDS [=Glean. Nat. Hist., 3, pl. 340], Brazil; we suggest Rio de Janeiro.

*Ampelis superba* SHAW (and NODDER), Natur. Misc., 19, No. 11, pl. 821, July, 1808—based on "Le Cotinga Cordon Bleu" LEVAILLANT (Hist. Nat. Ois. Nouv. et Rar. Amérique et Indes, 1, pl. 42) and EDWARDS (Glean. Nat. Hist., 3, pl. 340), Brazil.

*Ampelis cincta* KUHLMANN, Buffoni et Daubentoni Fig. Av. Nom. Syst., p. 4, 1820—based on "Cotinga du Brésil" DAUBENTON, Pl. Enl. 188, Brazil; STRICKLAND, Ann. Mag. Nat. Hist., 8, p. 373, 1842 (crit.); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 430, 1856—Nova Friburgo, Rio.

*Ampelis cotinga* (not of LINNAEUS) WIED, Reise Brasil., 1, p. 275 (8vo ed., p. 272), 1820—Viçosa, north of Rio Mucuri, southern Bahia; VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 761, 1822—Brazil; WIED, Beitr. Naturg. Bras., 3, (1), p. 391, 1830—Rio St. Matthaeus (Espírito Santo), Mucuri, Rio das Contas, and Rio Jiquiriçá (Bahia), Brazil.

*Ampelis fasciata* (not of THUNBERG, 1823) DESCOURTILZ, Orn. Brés., p. 26, pl. 29, fig. 1, circa 1856—"aux confins de la province de Rio Janeiro près Campos dos Goitacazes . . . Morro do Frade; . . . Bahia et . . . Pará." ("Pará" errore).

*Cotinga caerulea* (not *Ampelis caerulea* VIEILLOT) BONAPARTE, Consp. Av., 1, p. 175, 1850—Brazil.

*Cotinga cincta* SCLATER, Cat. B. Brit. Mus., 14, p. 383, 1888—Bahia, Brazil; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 314, 1907—Rio Doce, Espírito Santo.

Range: Wooded coast-region of southeastern Brazil, from Rio de Janeiro north to southern Bahia.

1: Brazil (Bahia 1).

**\*Cotinga amabilis Gould.<sup>1</sup> LOVELY COTINGA.**

*Cotinga amabilis* GOULD, P.Z.S.Lond., 25, p. 64, pl. 123, July, 1857—Guatemala; SCLATER and SALVIN, Ibis, 1859, p. 125—Vera Paz, Guatemala; SALVIN, l.c., 1860, p. 193—Cobán, Guatemala; SCLATER, P.Z.S.Lond., 28, p. 252, 1860—Orizaba, Vera Cruz, Mexico; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 117, 1868—"San José," Costa Rica; FRANTZIUS, Journ. Orn., 17, p. 310, 1869—Orosi, Costa Rica; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Naranjo de Cartago and Birris, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 384, 1888—Vera Paz, Choctum, and Cobán (Guatemala), and Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 138, 1891—part, Orizaba and Chimalapa, Tehuantepec (Mexico), Guatemala, and Costa Rica; BANGS, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Ceiba, Honduras; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 781, 1907—southeastern Mexico through Guatemala and Hon-

<sup>1</sup>*Cotinga amabilis* and the two next species are nearly related to, and probably conspecific with, *C. maynana*, of Upper Amazonia.



duras south to eastern Costa Rica (monog.); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Los Amates, Guatemala; CARRIKER, Ann. Carnegie Mus., 6, p. 676, 1910—Carrillo, Tuis, and Cachi, Costa Rica.

*Ampelis amabilis* CABANIS, Journ. Orn., 9, p. 253, 1861—Costa Rica.

Range: Southeastern Mexico, in states of Vera Cruz (Orizaba, Mirador, Pasa Nueva) and Oaxaca (Chimalapa) and southward through Guatemala and Honduras to eastern Costa Rica.<sup>1</sup>

5: Guatemala (Los Amates, Izabal 3; Gualan, Zacapa 2).

**\*Cotinga ridgwayi** Ridgway. RIDGWAY'S COTINGA.

*Cotinga ridgwayi* (ZELEDÓN MS.) RIDGWAY, Proc. U.S. Nat. Mus., 10, p. 1, pl. 6, fig. 3, 1887—part, type from Pozo Azul, Costa Rica, only; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Pozo Azul de Pirris; SCLATER, Cat. B. Brit. Mus., 14, p. 384, 1888—part, spec. a, b, Bugaba, Chiriquí; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 139, 1891—part, Pozo Azul, Costa Rica, and Bugaba, western Panama; CHERRIE, Expl. Zool. en Costa Rica, 1891-92, p. 37, 1893—Lagarto; BANGS, Proc. New Engl. Zool. Cl., 3, p. 41, 1902—Bugaba, Chiriquí; RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 783, 1907—southwestern Costa Rica and western Panama; CARRIKER, Ann. Carnegie Mus., 6, p. 675, 1910—Pozo Azul de Pirris, Costa Rica.

*Cotinga amabilis* (not of GOULD) SALVIN, P.Z.S. Lond., 1870, p. 200—Bugaba, Panama.

Range: Southwestern Costa Rica (Pozo Azul de Pirris, Pigres, Lagarto) and western Panama (Bugaba and Boquete, Chiriquí).<sup>2</sup>

2: Panama (Boquete, Chiriquí 2).

**Cotinga nattererii** (Boissonneau).<sup>3</sup> NATTERER'S COTINGA.

*Ampelis nattererii* BOISSONNEAU, Rev. Zool., 3, p. 2, 1840—Santa Fé de Bogotá, Colombia (descr. of adult male).

<sup>1</sup>Material examined.—Guatemala: Los Amates 3, Gualan 2, Vera Paz 2.—Honduras: San Pedro 1, Los Caminos 1.

<sup>2</sup>Birds from Boquete agree with topotypes from Pozo Azul, Costa Rica. Two specimens—adult male and female—in the U.S. National Museum, said to be from "Isthmus of Panama, May, 1887, W. E. Safford," likewise belong to the present species, but the locality is open to doubt.

<sup>3</sup>*Cotinga nattererii* (BOISSONNEAU): Adult male nearest to *C. ridgwayi*, but second primary decidedly longer (almost equaling the third) and apically not attenuated; purple of throat and pectoral area darker and narrowly barred with blackish; blue pectoral band much wider; female more deeply buff underneath, especially anteriorly. Wing (adult male) 107-111, (female) 106-110; tail 66-69, (female) 71-75; bill 14½-15.

A single adult male from Panama (Chorera) is identical with a series from the Pacific coast of Colombia. The only Bogotá skin seen by me (U.S. National Museum, No. 78,108) differs by the lighter purple of the abdominal area, resembling in that respect the Costa Rican *ridgwayi*. In all other particulars, however,

*Cotinga simoni* BERLEPSCH, Ornith., 14, p. 361, Feb., 1907—San José, Río Dagua, Colombia (type in Berlepsch Collection examined).

*Cotinga nattereri* (i) SCLATER, P.Z.S.Lond., 23, p. 152, 1855—Bogotá; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 140, footnote, 1891 (crit.); RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 785, 1907—eastern Panama (line of Panama Railway) to Bogotá, Colombia (monog.); HELLMAYR, P.Z.S.Lond., 1911, p. 1146—Nóvita, Chocó, Colombia (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 499, 1917—Iguamiandó, Noanamá, and Barbacoas, Pacific coast, and Puerto Valdivia, lower Cauca, Colombia, and Esmeraldas, Ecuador; HALLINAN, Auk, 41, p. 319, 1924—Sosa Hill, Panama; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 551, 1926—Esmeraldas, Ecuador; idem, l.c., 58, p. 163, 1920—Barro Colorado Island, Panama (nesting habits); GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—El Tigre, Río Cupe, Darién.

*Cotinga amabilis* (not of GOULD) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 473, 1862—line of Panama Railway.

*Cotinga ridgwayi* (not of RIDGWAY) RIDGWAY, Proc. U.S.Nat. Mus., 10, p. 1, 1887—part, Bogotá; SCLATER, Cat. B. Brit. Mus., 14, p. 384, 1888—part, spec. c, "Central America (probably Panama)"; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 139, 1891—part, Panama Railroad and Bogotá.

*Cotinga nattereri* (sic) BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 212, 1922—Mount Sapo, Darién (habits).

Range: Tropical Zone of eastern Panama (Panama Railroad; Darién), Colombia (Pacific coast, east to the lower Magdalena Valley; occasionally in "Bogotá" collections), and northwestern Ecuador (Esmeraldas).

**\**Cotinga maynana* (Linnaeus). MAYNAS COTINGA.**

*Ampelis maynana* LINNAEUS, Syst. Nat., 12th ed., 1, p. 298, 1766—based on "Le Cotinga des Maynas" BRISSON, Orn., 2, p. 341, pl. 34, fig. 2, 1760, Maynas, Peru; coll. Godin, in Mus. Réaumur.

*Cotinga maynana* SCLATER, P.Z.S.Lond., 25, p. 265, 1857—Río Javarri; idem, l.c., 26, p. 71, 1858—Río Napo, Ecuador; PELZELN, Orn. Bras., 2, p. 133, 1868—Río Joanari, right bank of Río Negro, and Tabatinga, Rio Solimões, Brazil; SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 285—Chamicuros and Santa Cruz, Peru; TACZANOWSKI, l.c., 1882, p. 24—Yurimaguas; idem, Orn. Pér., 2, p. 385, 1884—Peruvian localities; SCLATER, Cat. B. Brit. Mus., 14, p. 386, 1888—Iquitos, Río Ucayali, Chamicuros, Pebas (Peru),

it agrees with males from western Colombia, notably in the shape of the second primary, the width of the blue pectoral band, and the presence of greenish-black bars on throat and abdominal area. From the numerous buffy edges and lateral spots on the throat feathers I infer that the bird is not quite adult. Nevertheless the examination of a good series from "Bogotá" seems desirable.

Material examined.—Panama: Chorera 1.—Colombia: Bogotá 1; Nóvita, Chocó 18; Iguamiandó, Chocó 1; San José, Río Dagua 1; El Paillon, near Buena-ventura 2.

Sarayacu and Napo (Ecuador); ALLEN, Bull. Amer. Mus. N.H., 2, p. 74, 1889—Río Napo; GOODFELLOW, Ibis, 1901, p. 714—Upper Napo, Ecuador; IHERING and IHERING, Cat. Faun. Braz., 1, p. 314, 1907—range; HELLMAYR, Nov. Zool., 14, p. 51, 1907—Teffé, Rio Solimões; MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B 64, 1911—eastern Ecuador; SNETHLAGE, Journ. Orn., 56, p. 13, 1908—Bom Lugar, Rio Purús; idem, Bol. Mus. Goeldi, 8, p. 356, 1914—Bom Lugar, Rio Purús; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Sarayacu, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 551, 1926—Río Napo and below San José de Sumaco, Ecuador.

Range: Upper Amazonia, from eastern Ecuador south to eastern Peru and east to northwestern Brazil (Teffé and Tabatinga, Rio Solimões; Rio Joanari, an affluent on the right side of the Rio Negro; Rio Purús).<sup>1</sup>

1: Peru (Yurimaguas 1).

**\*Cotinga cayana (Linnaeus). CAYENNE COTINGA.**

*Ampelis cayana* LINNAEUS, Syst. Nat., 12th ed., 1, p. 298, 1766—based on "Le Cotinga de Cayenne," BRISSON, Orn., 2, p. 344, pl. 34, fig. 3, 1760: "Brésil et Cayenne, d'où il a été envoyé à M. de Réaumur par M. des Essars," type locality therefore Cayenne; LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 40, 1837—Yuracares, Bolivia; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 693, 1848—Demerara; DESCOURTILZ, Orn. Brés., p. 25, pl. 28, fig. 4, circa 1856—"Maranhão" et Pará.

*Ampelis cayennensis* D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 297, 1839—Yuracares, Bolivia (descr. of male).

*Ampelis cajana* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 429, 1856—northern Brazil.

*Cotinga cayana* SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 191—Peru; idem, l.c., 1867, p. 580—Rio Negro; idem, l.c., p. 751—Xeberos, Peru; idem, l.c., p. 978—Pebas; PELZELN, Orn. Bras., 2, p. 133, 1868—Borba (Rio Madeira), Rio Xié, Rio Vaupé, Cachoeira São Jeronimo, Rio Negro, Manáos, Pará; SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 285—Sarayacu, Xeberos, Chamicuros, Santa Cruz, and Pebas, Peru; idem, l.c., 1879, p. 618—Yuracares, Bolivia; TACZANOWSKI, Orn. Pér., 2, p. 384, 1884—Peruvian localities; SALVIN, Ibis, 1885, p. 305—Bartica Grove, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 385, 1888—Bartica Grove, Cayenne, Chyavetas, Sarayacu, Río Napo; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—lower Beni, Bolivia; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém, Rio Tapajóz; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá; idem, Cat. Faun. Braz., 1, p. 314, 1907—Rio Juruá; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Santo Antonio do Prata and Pará; BERLEPSCH, Nov. Zool., 15, p. 142, 1908—Cayenne;

<sup>1</sup>Material examined.—Ecuador: Upper Río Napo 2, Sarayacu 1.—Brazil: Teffé, Rio Solimões 1; Tabatinga 1; Rio Joanari, Rio Negro 4.—Peru: Pebas 3, Iquitos 1, Yurimaguas 1.



HELLMAYR, l.c., 17, p. 316, 1910—Calama, Rio Madeira; PENARD and PENARD, Vog. Guyana, 2, p. 169, 1910—Surinam; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 35, 91, 1912—Ipitinga and Peixe-Boi (Pará localities); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 356, 1914—Pará, Mocajutuba, Providencia, Benevides, Santo Antonio do Prata, Rio Acará, Rio Tocantins (Mazagão), Rio Tapajós (Boim), Rio Negro; BEEBE, Zoologica (N.Y.), 2, p. 95, 1916—Utinga, Pará; CHUBB, Birds Brit. Guiana, 2, p. 300, 1921—numerous localities; HELLMAYR, Nov. Zool., 32, p. 13, 1925—Bolivia; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 551, 1926—eastern Ecuador; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Rio Inhangapy, Pará.

*Cotinga cayenna* C. B. BROWN, Canoe and Camp Life in British Guiana, p. 395, 1876—near Waipah, Upper Ireng River.

*Cotinga nattereri* (not of BOISSONNEAU) SCLATER, Cat. B. Brit. Mus., 14, p. 385, 1888—Bogotá.

*Dacnis (lapsu) cayana* BERLIOZ, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Sarayacu, Ecuador (spec. examined).

Range: French, Dutch, and British Guiana; northern Brazil, east to Pará, south to the upper Rio Madeira; eastern Colombia (not uncommon in native "Bogotá" collections); eastern Ecuador; eastern Peru; northern Bolivia (Yuracares; lower Beni).<sup>1</sup>

3: British Guiana (Corentyne River 1, Demerara River 1); Peru (Rioja 1).

### Genus **XIPHOLENA** Gloger.<sup>2</sup>

*Xipholena* GLOGER, Gemeinnütz. Hand- und Hilfsbuch Naturg., 1, p. 320, 1841—generic characters, no species mentioned; type by subs. desig. (Gray, Cat. Gen. Subgen. Birds, p. 56, 1855) *Ampelis pompadora* LINNAEUS = *Turdus puniceus* PALLAS.

### \**Xipholena punicea* (Pallas). POMPADOUR CHATTERER.

*Turdus puniceus* PALLAS in Vroeg's Catalogue, Adumbrat., p. 2, 1764—"Zuyd America," we suggest Surinam.

*Ampelis pompadora* LINNAEUS, Syst. Nat., 12th ed., 1, p. 298, 1766—based on *Turdus puniceus* PALLAS (l.c.), "Cotinga purpurea" BRISSON (Orn., 2, p. 347, pl. 35, fig. 1, 1760—Cayenne) and "Pompadour" EDWARDS (Glean. Nat. Hist., 3, p. 275, pl. 341—Cayenne); HAHN, Vogel aus Asien, etc., Lief. 9, pl. 3, 1821—Cayenne, Guiana; SCHOMBURGK, Reisen Brit. Guiana, 2, p. 90, 1848—upper Takutú River; DESCOURTILZ, Orn. Brés., p. 25, pl. 28, fig. 2, circa 1856—"Maranhão et Pará" (errore).

<sup>1</sup>Material examined.—Cayenne 3.—British Guiana 7.—Brazil: Ipitinga, Rio Acará 14; Peixe-Boi 1; Pará 1; Rio Negro 4; Calama, Rio Madeira 1.—Colombia: "Bogotá" 7.—Ecuador: Sarayacu 2.—Peru: Iquitos 2, Rioja 1.

<sup>2</sup>The three species of the genus, while obviously geographical representatives, differ so much in structure and proportions that I hesitate to treat any of them as subspecies.

(?) *Ampelis grisea* BODDAERT, Tabl. Pl. Enl., p. 43, 1783—based on "Cotinga gris de Cayenne" DAUBENTON, Pl. Enl. 699,<sup>1</sup> Cayenne.

(?) *Ampelis cinerea* LATHAM, Ind. Orn., 1, p. 367, 1790—based on *Lanius nengeta* var.  $\beta$ , GMELIN, Syst. Nat., 1, (1), p. 299, 1788: ex "Cotinga gris de Cayenne" DAUBENTON, Pl. Enl. 699, and "Variété du Guirarou" BUFFON, Cayenne.

*Xipholena pompadora* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 693, 1848—British Guiana; BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER and SALVIN, Exotic Orn., p. 9, 1866—Cayenne and British Guiana, west to Guá, Rio Negro; idem, P.Z.S.Lond., 1867, p. 580—Guá, Rio Negro; PELZELN, Orn. Bras., 2, p. 133, 1868—Borba (Rio Madeira), Barra do Rio Negro [= Manáos], Rio Xíe, Rio Içanna, and Rio Vaupé, Brazil; SALVIN, Ibis, 1885, p. 305—Bartica Grove, Camacusa, Merumé Mountains, Atapurow River; SCLATER, Cat. B. Brit. Mus., 14, p. 387, 1888—Cayenne, Bartica Grove, Atapurow River, Camacusa, Maroni River; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá; BERLEPSCH, Nov. Zool., 15, p. 142, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 170, 1910—Surinam.

*Xipholena punicea* IHERING and IHERING, Cat. Faun. Braz., 1, p. 314, 1907—British Guiana and Rio Juruá, Brazil; BERLEPSCH, Nov. Zool., 15, p. 321, 1908—Cayenne; HELLMAYR, l.c., 17, p. 316, 1910—Borba, Rio Madeira; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 357, 1914—Rio Jamundá (Faro) and upper Rio Negro; CHUBB, Birds Brit. Guiana, 2, p. 302, 1921—numerous localities.

Range: French, Dutch, and British Guiana, and northern Brazil (east of Manáos north of the Amazon only, but farther west also south of that river from the Rio Madeira at least to the Juruá).<sup>2</sup>

4: British Guiana (Demerara River 3, unspecified 1).

\**Xipholena lamellipennis* (Lafresnaye). LAFRESNAYE'S CHATTERER.

*Ampelis lamellipennis* LAFRESNAYE, Mag. Zool., (2), 1, cl. 2, pl. 9, 1839—"l'Amérique du Sud," we specify Pará.

*Xipholena lamellipennis* SCLATER and SALVIN, Exotic Orn., p. 10, 1866—Pará; idem, P.Z.S.Lond., 1867, p. 580—Pará; PELZELN, Orn. Bras., 2, p. 133, 1868—Pará; SCLATER, Cat. B. Brit. Mus., 14, p. 389, 1888—Pará; HELLMAYR, Nov. Zool., 12, p. 295, 1905—Igarapé-assú, Pará; SNETHLAGE, Journ. Orn., 55, p. 292, 1907—Pará, Santo Antonio do Prata; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 100, 1910; l.c., p. 154, 1925—Miritiba, Maranhão; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 35, 91, 1912—Peixe-Boi, Ipitinga (Pará localities); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 357, 1914—Pará, Providencia, Bene-

<sup>1</sup>Daubenton's unusually poor figure appears to have been taken from a female example of the Pompadour Chatterer.

<sup>2</sup>Material examined.—French Guiana: Cayenne 5.—British Guiana: Demerara River 5, Bartica Grove 3.—Brazil: Rio Negro 5; Borba, Rio Madeira 1; Rio Juruá 1.

vides, Santo Antonio do Prata, Rio Tocantins (Mazagão, Cametá, Baião), and Rio Tapajóz (Boim); STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Pinheiro, Pará.

Range: Northern Brazil south of the Amazon, from the Tapajóz to Pará and extending east into the northern districts of Maranhão (Miritiba).<sup>1</sup>

1: "Brazil" (unspecified 1).

**\*Xipholena atro-purpurea (Wied).** WIED'S CHATTERER.

*Ampelis atro-purpurea* WIED, Reise Bras., 1, p. 262 (8vo ed., p. 260), 1820—Morro d'Arára, Mucuri River, Espirito Santo.

*Ampelis purpurea* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 57, 1823—Bahia (descr. of adult and immature male); WIED, Beitr. Naturg. Bras., 3, (1), p. 397, 1830—Lagôa d'Arára, Espirito Santo; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 428, 1856—Nova Friburgo, Rio.

*Xipholena atropurpurea* SCLATER and SALVIN, Exotic Orn., p. 9, pl. 5, 1866—wooded region of eastern Brazil; SCLATER, Cat. B. Brit. Mus., 14, p. 388, 1888—Pernambuco and Bahia, Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 241, 1889—Rio Mucuri (note on type); IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 314, 1907—Bahia and Espirito Santo; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—southern Bahia.

*Xipholena purpurea* PELZELN, Orn. Bras., 2, p. 133, 1868—Brazil=Bahia (plumages).

Range: Wooded region of eastern Brazil, from Pernambuco south to Espirito Santo and Rio de Janeiro (Nova Friburgo).

4: Brazil (Santo Amaro, Bahia 3; Bahia 1).

Genus **CARPODECTES** Salvin.<sup>2</sup>

*Carpodectes* SALVIN, P.Z.S.Lond., "1864," p. 583, pub. April, 1865—type *Carpodectes nitidus* SALVIN.

**Carpodectes nitidus nitidus Salvin.** SNOWY COTINGA.

*Carpodectes nitidus* SALVIN, P.Z.S.Lond., "1864," p. 583, pl. 36, pub. April, 1865—Tucurriqui, Costa Rica; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 8, p. 183, 1865—Greytown, Nicaragua; idem, l.c., 9, p. 117, 1868—Tucurriqui, Costa Rica; BOUCARD, P.Z.S.Lond., 1878, p. 65—San Carlos, Costa Rica (descr. of female); RIDGWAY, Proc. U.S.Nat. Mus., 1, p. 255, 1878—Pacuaré, Costa Rica (descr. of young male); idem, l.c., 11, p. 544, 1888—

<sup>1</sup>Material examined.—Pará district (Pará, Igarapé-assú, Ipitinga, Peixe-Boi, etc.) 15; Miritiba, Maranhão 2.

<sup>2</sup>The three members of the genus, while presenting excellent distinguishing characters, are clearly but races of a single specific unit.



Pacuaré (descr. of imm. male); ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Carrillo and Pacuaré; SCLATER, Cat. B. Brit. Mus., 14, p. 389, 1888—Tucurriquí; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 140, pl. 42 (male, female), 1891—Nicaragua (Greytown) and Costa Rica (Tucurriquí, Pacuaré, San Carlos); RICHMOND, Proc. U.S. Nat. Mus., 16, p. 509, 1893—Río Frío, Costa Rica and Río Escondido, Nicaragua; BANGS, Bull. Mus. Comp. Zool., 39, p. 150, 1903—Ceiba, Honduras; RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 788, 1907—Atlantic slope of Costa Rica and Nicaragua; CARRIKER, Ann. Carnegie Mus., 6, p. 674, 1910—Carrillo, Río Frío, Guacimo, Limón, Reventazón, Guapiles, Costa Rica; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Pacuarito, Costa Rica; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 458, 1928—Almirante, Panama.

Range: Caribbean slope of Honduras (Ceiba), Nicaragua, Costa Rica, and extreme northern Panama (Almirante Bay).

**\**Carpodectes nitidus antoniae* Ridgway. ANTONIA'S COTINGA.**

*Carpodectes antoniae* (ZELEDÓN MS.) RIDGWAY, Ibis, (5), 2, p. 27, pl. 2 (male), Jan., 1884—Pirris, southwestern Costa Rica; idem, Proc. U.S. Nat. Mus., 6, No. 26, "1883," p. 410, April, 1884—Pirris; idem, l.c., 10, p. 20, 1887—Pirris (descr. of female); ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Pozo Azul de Pirris; SCLATER, Cat. B. Brit. Mus., 14, p. 389, 1888—western Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 141, 1891—Pirris; BANGS, Proc. New Engl. Zool. Cl., 3, p. 41, 1902—Pedregal, Chiriquí, Panama; RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 789, 1907—Pacific slope of Costa Rica and western Panama; CARRIKER, Ann. Carnegie Mus., 6, p. 674, 1910—Pozo Azul de Piris, Costa Rica.

Range: Pacific slope of Costa Rica (Pozo Azul de Pirris and Pigres) and western Panama (Chiriquí).

1: Costa Rica (Pozo Azul de Pirris 1).

***Carpodectes nitidus hopkei* Berlepsch.<sup>1</sup> HOPKE'S COTINGA.**

*Carpodectes hopkei* BERLEPSCH, Orn. Monatsber., 5, p. 174, 1897—San José, Río Dagua, Colombia (type examined); HARTERT, Nov. Zool., 9, p. 611, 1902—Ventana, Ecuador (spec. examined); HELLMAYR, P.Z.S. Lond., 1911, p. 1147—Nóvita, Chocó, Colombia (crit., plumages); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 499, 1917—Iguamiandó, Chocó, Colombia; idem, l.c., 55, p. 552, 1926—Ecuador.

Range: Pacific coast of Colombia (Nóvita, Iguamiandó, Río Dagua) and northwestern Ecuador (Ventanas, prov. Esmeraldas).

<sup>1</sup>*Carpodectes nitidus hopkei* BERLEPSCH: Immediately recognizable from its allies by much larger size, black bill, and by the black apical spots on the six outer primaries and the central rectrices of the adult males. Wing (male) 158-171, (female) 140-145; tail 95-102, (female) 85-90; bill 20-22, (female) 18-20.

Material examined.—Colombia: Nóvita, Río Tamaná 13, San José, Río Dagua 11.—Ecuador: Ventanas, prov. Esmeraldas 3.

Genus **EUCHLORNIS** Filippi.<sup>1</sup>

*Euchlornis* FILIPPI, Mus. Mediol., No. 1., Anim. Vertebr., Cl. 2, (Aves), pp. 12, 31, 1847—type *Ampelis riefferii* BOISSONNEAU.

*Pyrrhorhynchus* LAFRESNAYE, Rev. Mag. Zool., (2), 1, p. 103, 1849—type by subs. desig. (SCLATER, Ibis, 1878, p. 166) *Ampelis viridis* LAFRESNAYE and D'ORBIGNY.

*Pyrrhorhynchus* BONAPARTE, Ateneo Italiano, 2, No. 11, p. 315 (=Consp. Voluc. Anisod., p. 5), 1854—emendation of *Pyrrhorhynchus* LAFRESNAYE.

*Euchlorornis* CABANIS and HEINE, Mus. Hein., 2, p. 103, 1859—emendation of *Euchlornis* FILIPPI.

**\*Euchlornis riefferii melanolaema (Sclater).** VENEZUELAN FRUIT-EATER.

*Pipreola melanolaema* SCLATER, Ann. Mag. Nat. Hist., (2), 17, p. 469, 1856—"in Venezuela, Caraccas" (type in Paris Museum examined); SCLATER and SALVIN, P.Z.S.Lond., 1868, p. 628—Caracas; idem, l.c., 1870, p. 781—upper wood region of Mérida; SCLATER, Ibis, 1878, p. 167—part, Caracas, Mérida, Venezuela; idem, Cat. B. Brit. Mus., 14, p. 377, 1888—part, spec. a-d, Caracas, Mérida, Venezuela.

*Euchlornis viridis melanolaema* HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 208, 1915—Silla de Caracas and Andes of Mérida.

Range: Subtropical Zone of northwestern Venezuela, from Caracas to Mérida.<sup>2</sup>

5: Venezuela, Andes of Mérida (El Valle 2, Río Mucujón 3).

**\*Euchlornis riefferii riefferii (Boissonneau).** RIEFFER'S FRUIT-EATER.

*Ampelis riefferii* BOISSONNEAU, Rev. Zool., 3, p. 3, 1840—Santa Fé de Bogotá; HARTLAUB, Rev. Mag. Zool., (2), 1, p. 494, 1849—Colombia.

*Pipreola riefferi* SCLATER, P.Z.S.Lond., 22, p. 113, 1854—Quixos, Ecuador; idem, l.c., 23, p. 153, 1855—Bogotá; idem, Ibis, 1878, p. 166—Bogotá and "vicinity of Quito" = eastern Ecuador; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 519—Retiro, Medellín, and Santa Elena, Antioquia; BERLEPSCH Journ. Orn., 32, p. 306, 1884—Bucaramanga; idem, Zeits. Ges. Orn., 4, p. 184, 1887—Bogotá; SCLATER, Cat. B. Brit. Mus., 14, p. 377, 1888—Bogotá, Retiro, Santa Elena, "vicinity of Quito" and "San Lucas, Ecuador"; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 17, 1899—Pun, Ecuador; PIGUET, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Cafetal La Camelia, near Angelópolis, Antioquia.

<sup>1</sup>An earlier name is probably *Pipreola* SWAINSON (Anim. Menag., p. 357, Dec., 1837—type by monotypy *Pipreola chlorolepidota* SWAINSON), but as long as the genotype has not been identified beyond doubt, it cannot be accepted under the present rules of nomenclature.

<sup>2</sup>Birds from Mérida generally have the upper parts slightly more yellowish green, and the whitish apical edges to the lateral rectrices hardly suggested.

Material examined.—North coast mountains, near Caracas (Silla de Caracas and Cerro del Avila) 26.—Andes of Mérida: El Valle 4, Escorial 2, La Hechisera 2, Río Mucujón 3.

*Euchlornis viridis riefferii* HELLMAYER, Verh. Orn. Ges. Bay., 12, p. 208, 1915—Colombia (Bogotá, Antioquia).

*Euchlornis riefferi riefferi* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 498, 1917—Fusugasugá, El Roble, and Subia (Eastern Andes), El Eden and Santa Elena (northern Central Andes), Colombia; idem, l.c., 55, p. 549, 1926—Sabanilla, Macas region, Baeza, below Oyacachi, and upper Sumaco, eastern Ecuador.

Range: Subtropical Zone of eastern Ecuador and northern Central as well as Eastern Andes of Colombia, east to the Venezuelan line (Páramo de Tamá).<sup>1</sup>

7: Colombia (Bogotá 2; El Eden, East Quindio Andes 1; Páramo de Tamá, Santander 4).

**\**Euchlornis riefferii occidentalis* Chapman.<sup>2</sup> WEST ANDEAN FRUIT-EATER.**

*Euchlornis riefferi occidentalis* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 630, 1914—San Antonio, Western Andes, Colombia; idem, l.c., 36, p. 498, 1917—San Antonio, Cerro Munchique, La Florida, Cocal, and Almaguer (Western Andes), and (?) Salento (west slope of Central Andes), Colombia; idem, l.c., 55, p. 549, 1926—"Gualea," Verdecocha, and Salvias, Ecuador.

*Pipreola melanolaema* (not of SCLATER, 1856) SCLATER, P.Z.S.Lond., 28, p. 67, 1860—Chillanes, above Pallatanga, Ecuador; idem, Ibis, 1878, p. 167—part, Chillanes and Intaj [=Intac], Ecuador; idem, Cat. B. Brit. Mus., 14, p. 377, 1888—part, spec. e-g, Intac and Chillanes, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 17, 1899—Nanegal; MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B63, 1911—Canchacoto (above Santo Domingo) and Gualea, Ecuador.

<sup>1</sup>Birds from the Páramo de Tamá form the transition to *E. r. melanolaema*, and one of our specimens (an adult male) approaches it very closely. Three adult males from the northern section of the Central Andes (Santa Elena, El Eden) and one from Pun, northeastern Ecuador agree with the average of Bogotá skins. The localities "Vicinity of Quito" and "San Lucas, Ecuador," given by Sclater, are doubtless incorrect, the only form found on the western slope of the Ecuadorian Andes being the dark-headed *E. r. occidentalis*.

Material examined.—Colombia: Bogotá 14; Santa Elena, Antioquia 2; El Eden, East Quindio Andes 1.—Ecuador: Pun 1, "near Baños" 2.

<sup>2</sup>*Euchlornis riefferii occidentalis* CHAPMAN: Most nearly related to, and agreeing in blackish head with, *E. r. melanolaema*, but upper parts rather darker (less yellowish) green; edges to greater upper wing coverts broader, less sharply defined, and wholly green, there being at best a narrow yellowish fringe at the very tip; tertials with much more green, this color occupying the whole of the outer web, and the whitish apical edges decidedly narrower. Wing (adult males) 92-95; tail 70-73; bill 14-15.

Birds from Ecuador agree with those from Colombia in wing markings, but approach *E. r. chachapoyas* in having the middle as well as the sides of the posterior under parts spotted with green.

Material examined.—Colombia: San Antonio 6, Almaguer 1.—Ecuador: above Gualea 2, Mindo 1, Nanegal 3, Canchacoto 1, "Ambato" 1.



*Pipreola riefferi* (not of BOISSONNEAU) GOODFELLOW, Ibis, 1901, p. 713—Mindo, Ecuador (spec. examined).

*Euchlornis (Pipreola) melanolaema* LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 76, 1922—road to Nanegal, near Mindo, and road to Gualea, Ecuador.

Range: Subtropical Zone of western Ecuador and Western Andes of Colombia.<sup>1</sup>

3: Colombia (San Antonio 1; Almaguer, Cauca 1); Ecuador (Nanegal 1).

***Euchlornis riefferii chachapoyas* Hellmayr.<sup>2</sup> CHACHAPOYAS FRUIT-EATER.**

*Euchlornis viridis chachapoyas* HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 206, July, 1915—Chachapoyas, northern Peru.

*Pipreola riefferi* (not of BOISSONNEAU) TACZANOWSKI, P.Z.S.Lond., 1882, p. 24—Tamiapampa, Peru; idem, Orn. Pér., 2, p. 375, 1884—Tamiapampa.

*Pipreola viridis* (not of LAFRESNAYE and D'ORBINGY) MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—part, Nuevo Loreto, east of Tayabamba, Peru (descr. of female; spec. in Paris Museum examined).

Range: Northern Peru, in depts. of Amazonas (Chachapoyas, San Pedro, Tamiapampa) and Libertad (Nuevo Loreto, prov. Pataz).

***Euchlornis intermedia intermedia* (Taczanowski).<sup>3</sup> INTERMEDIATE FRUIT-EATER.**

*Pipreola viridis intermedia* TACZANOWSKI, Orn. Pér., 2, p. 376, 1884—Maraynioc, dept. Junín, Peru; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Chilpes, Vitoc, and Culumachay, Maraynioc, dept. Junín.

<sup>1</sup>The northwestern limit of its range cannot at present be defined, and until adult males become available for comparison, it will be impossible to decide whether a single female from Salento (east of Cartago), on the west slope of the Central Andes, in the American Museum is referable to *occidentalis* or *riefferii*.

<sup>2</sup>*Euchlornis riefferii chachapoyas* HELLMAYR: Adult male similar to *E. r. occidentalis*, but wings shorter and bill smaller; upper parts deeper, more bluish green; yellow collar around the hind neck either complete or interrupted but for a short distance in the middle; no plain yellow abdominal line, the median under parts being spotted with green like the sides and flanks; tail without any, or with mere traces of, white apical edges; female exactly like *E. r. occidentalis* in coloration, but smaller. Wing (adult males) 86½-91, twice 92, (female) 83; tail 67-75; bill 12.

Material examined.—Peru: Chachapoyas 12, San Pedro 1, Nuevo Loreto 2.

<sup>3</sup>*Euchlornis intermedia intermedia* (TACZANOWSKI) appears to constitute a distinct species, as I am led to believe by material recently examined in the Paris Museum. It differs from *E. riefferii chachapoyas* and its northern allies by larger size; deep black head all round, with large glossy steel-blue marginal edges; bicolored tail, the entire inner web and a distinct subapical band across the outer web of the five outer rectrices being black in abrupt contrast to the green of the remaining portion, while the median pair is provided with a black subapical

*Ampelis viridis* (not of THUNBERG) TSCHUDI, Arch. Naturg., 10, (1), p. 269, 1844—Peru; idem, Untersuch. Faun. Peru., Aves, p. 135, 1846—Montañas of central Peru (descr. of female).

*Pipreola viridis* TACZANOWSKI, P.Z.S.Lond., 1874, p. 540—Maraynioc, Peru; SCLATER, Ibis, 1878, p. 167—part, Junín district, Peru; idem, Cat. B. Brit. Mus., 14, p. 378, 1888—part, spec. a, Pumamarca; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—part, Cumpang, east of Tayabamba, Peru (spec. in Paris Museum examined).

Range: Subtropical Zone of central and northern Peru, in depts. of Junín (Rumicruz, Maraynioc, Chilpes, Culumachay, Pumamarca) and Libertad (Cumpang).

***Euchlornis intermedia signata* Hellmayr.<sup>1</sup> D'ORBIGNY'S FRUIT-EATER.**

*Ampelis viridis* (not of THUNBERG, 1823) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 40, 1837—Yungas, Bolivia (type in Paris Museum examined; =female); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 298, pl. 31, fig. 2, 1839—Chulumani, Yungas of La Paz, Bolivia.

*Euchlornis riefferii signata* HELLMAYR, Verh. Orn. Ges. Bay., 13, p. 199, 1917—new name for *Ampelis viridis* LAFRESNAYE and D'ORBIGNY, preoccupied; idem, Nov. Zool., 32, p. 13, 1925—Yungas (note on type).

*Pipreola melanolaema* (not of SCLATER, 1856) SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 186—Huasampilla, Peru; SCLATER, l.c., 1873, p. 780—Huasampilla.

*Pipreola viridis* SCLATER, Ibis, 1878, p. 167—part, descr. and hab. Andes of Cuzco and Bolivia; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 618—Chulumani and Tilotilo, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 378, 1888—part, spec. b-g, Huasampilla, Peru and Tilotilo, Bolivia.

band (about 12 mm. wide) across the whole width of the feather; very conspicuous white apical edges to all of the rectrices and remiges, excepting the two outermost primaries, and by having the under parts (below the black foreneck) densely variegated all over with greenish black squamate markings. The female, except for lacking the black head, exhibits similar difference. Wing 99, (female) 95; tail 87, (female) 81; bill 13.

The late G. A. Baer, in August, 1900, obtained a single adult male in perfect plumage at Cumpang, alt. 2400 meters, east of Tayabamba, dept. Libertad, which seems to be inseparable from topotypical examples of *E. i. intermedia*, while in the same general region, though at a lower altitude, at Nuevo Loreto, alt. 1200 meters, a pair of *E. r. chachapoyas* was secured by the same collector in July, 1900. Although there may be a difference in the vertical distribution of the two forms, it seems advisable to regard them—at least, for the present—as specifically distinct.

Material examined.—Peru: Rumicruz, alt. 9700 ft., dept. Junín (American Museum of Natural History, New York) 2; Cumpang, alt. 2400 meters, dept. Libertad (Paris Museum) 1.

<sup>1</sup>*Euchlornis intermedia signata* HELLMAYR: Similar to *E. i. intermedia*, but adult male with a post-auricular band of lemon chrome across sides of neck, and with the middle of the breast and abdomen extensively plain (unmarked) bright yellow; female with yellow orbital ring much more conspicuous, lores and upper throat strongly suffused with yellowish, etc. Wing 98-100, (female) 91-98; tail 85-87, (female) 80-87; bill 13-14.

Range: Subtropical Zone of southeastern Peru (Huasampilla, dept. Cuzco; below Limbani, dept. Puno) and Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

**Euchlornis lubomirskii** (Taczanowski).<sup>2</sup> LUBOMIRSKI'S FRUIT-EATER.

*Pipreola lubomirskii* TACZANOWSKI, P.Z.S.Lond., 1879, p. 236, pl. 22—Tambillo, dept. Cajamarca, Peru; idem, Orn. Pér., 2, p. 377, 1884—Tambillo; SCLATER, Cat. B. Brit. Mus., 14, p. 380, 1888—Tambillo; GOODFELLOW, Ibis, 1901, p. 713—Baeza, eastern Ecuador (spec. examined).

*Euchlornis lubomirskii* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 499, 1917—La Candela, sources of the Magdalena River, Colombia; idem, l.c., 55, p. 550, 1926—below Oyacachi, Ecuador.

(?) *Pipreola chlorolepidota* (not of SWAINSON) SCLATER, P.Z.S.Lond., 27, p. 441, 1859—Río Napo, Ecuador.

(?) *Pipreola formosa* (not of HARTLAUB) SCLATER, Cat. B. Brit. Mus., 14, p. 378, 1888—part, spec. f, Río Napo.

Range: Subtropical Zone of southern Colombia (La Candela, head of the Magdalena Valley), eastern Ecuador (Baeza; below Oyacachi), and northern Peru (Tambillo, prov. Jaen).

**Euchlornis jucunda** (Sclater).<sup>3</sup> YELLOW-VENTED FRUIT-EATER.

*Pipreola jucunda* SCLATER, P.Z.S.Lond., 28, p. 89, pl. 160, 1860—Cachi-Llacta, near Nanegal, Ecuador (descr. of male); idem, Ibis, 1878, p. 171—Ecuador (monog., descr. of female); TACZANOWSKI and BERLEPSCH, P.Z.S.Lond., 1884, p. 298—Cayandeled; SCLATER, Cat. B. Brit. Mus., 14,

<sup>1</sup>Two specimens from below Limbani, the male unfortunately immature, appear to be inseparable from a Bolivian series, except by smaller size.

Material examined.—Peru: below Limbani, northern Puno 2.—Bolivia: Chulumani (the type) 1; Chaco, near La Paz 3; San Antonio 1; Sandillani 7; Cocapata 4; San Cristóbal 1; Incachaca, Cochabamba 6; Yungas of Cochabamba 1.

<sup>2</sup>*Euchlornis lubomirskii* (TACZANOWSKI): Differs from the *E. riefferii* group by lacking the yellow band across the sides of the neck and nape, as well as the white apical edges to the inner secondaries and lateral rectrices; by having the tertials entirely green, including their inner webs, and the lower surface of the tail tinged with glaucous. Besides, the head and throat, in the adult male, are even deeper black than in *E. intermedia*, while the middle of the breast and abdomen is uniform bright yellow, without any greenish markings. Wing 91-96, (female) 92; tail 64-68; bill 14-15.

*E. lubomirskii* is nearly related to, and resembles, *E. jucunda* in the absence of white markings on wings and tail, glaucous olive under surface of the rectrices, and wholly green tertials, but differs in that the male has the foreneck (like the throat) glossy black instead of orange, whereas the female may be distinguished by lacking the crescent of orange yellow streaks across the foreneck.

Material examined.—Ecuador: Baeza 6.—Peru: Tambillo 1.

<sup>3</sup>*Euchlornis jucunda* (SCLATER): Adult male agreeing with *E. pulchra* in the large, wholly orange bill, in possessing an orange post-auricular band across sides of neck and an orange yellow jugular area, as well as in lacking every trace of white apical margins to remiges and rectrices; but somewhat smaller; top and sides of the head and upper throat (chin) glossy black (instead of dusky green);



p. 381, 1888—Cachi-Llacta, Intac, and "Quito", western Ecuador; GOODFELLOW, Ibis, 1901, p. 713—Nanegal; MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B63, 1911—Gualea.

*Euchlornis (Pipreola) jucunda* LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 76, 1922—road to Gualea and Mindo, Ecuador.

*Euchlornis jucunda* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 550, 1926—"Quito."

Range: Subtropical Zone of western Ecuador.

### *Euchlornis pulchra* Hellmayr.<sup>1</sup> BEAUTIFUL FRUIT-EATER.

*Ampelis elegans* (not of THUNBERG, 1823) TSCHUDI, Arch. Naturg., 9, (1), p. 385, 1843—"ad flumen Tullumayo," dept. Junín, Peru (descr. of male); idem, l.c., 10, (1), p. 269, 1844—Peru; idem, Untersuch. Faun. Peru., Aves, p. 135, 1846—Peru; HARTLAUB, Rev. Mag. Zool., (2), 1, p. 494, 1849—part, Peru.

*Euchlornis pulchra* HELLMAYR, Verh. Orn. Ges. Bay., 13, p. 199, 1917—new name for *Ampelis elegans* TSCHUDI, preoccupied.

*Pipreola elegans* SCLATER, Ibis, 1878, p. 172—Peru (descr. of type); TACZANOWSKI, Orn. Pér., 2, p. 378, 1884—near Achamal, Peru (descr. ♂ ♀); SCLATER, Cat. B. Brit. Mus., 14, p. 381, 1888—Peru (descr. of male); BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Garita del Sol, Vitoc, Peru; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—Cueva Seca, Río Tocache, Peru (spec. in Paris Museum examined).

blackish border to orange jugular area interrupted in the middle; yellow zone along middle of breast and abdomen brighter and much more extensive. Wing 90-93; tail 60-63; bill 15-16.

The male of this form stands somewhat between *E. pulchra* and *E. lubomirskii*, and combines the orange yellow post-auricular band and jugular area of the former with the glossy black head and extensive bright yellow abdominal zone of the latter.

Material examined.—Ecuador: Cayandeled 4, Nanegal 1, Gualea 2, Mindo 2, "Quito" 3.

<sup>1</sup>*Euchlornis pulchra* HELLMAYR, together with *E. lubomirskii* and *E. jucunda*, forms a natural group in the genus, and when we shall have acquired a fuller knowledge of their ranges and variation, it may be found necessary to merge them into a single specific unit. In the male sex, it differs from both of its allies by dusky green (instead of glossy black) head and upper throat. On the under parts, it is very similar to *E. jucunda* and, like this species, has on the sides of the neck a broad orange yellow post-auricular band, margined posteriorly by blackish; however, it can be easily told by the black border to the orange yellow jugular area being continuous, and by the much paler as well as much less extensive yellow abdominal area. The female closely resembles that of *E. aureopectus*, but lacks the yellowish white apical margins to lateral remiges and inner remiges. Wing 95 (Cushi Libertad), 101 (Cueva Seca), (female) 93; tail 67-78; bill 14-15.

An adult male from Cueva Seca, alt. 1800 meters, Libertad, differs from two from central Peru (Cushi Libertad and Garita del Sol) by having the blackish border to the orange yellow jugular area medially interrupted, and approaches in that respect the Ecuadorian *E. jucunda*.

Material examined.—Peru: Garita del Sol, Vitoc (adult male) 1; Chelpe, Junín (female) 1; Cushi Libertad, alt. 1820 meters, Huánuco (adult male) 1; Cueva Seca, alt. 1800 meters, Libertad (adult male) 1.

*Pipreola aureipectus* (not of LAFRESNAYE) TACZANOWSKI, P.Z.S.Lond., 1882, p. 24—Achamal, near Chirimoto, Peru.

Range: Subtropical Zone of Peru, in depts. of San Martín (near Achamal, Río Huambo; Cueva Seca, Río Tocache), Huánuco (Cushi Libertad), and Junín (Río Tulumayo; Garita del Sol, Vitoc; Chelpes).

***Euchlornis aureopectus festiva* Todd.<sup>1</sup> TODD'S GOLDEN-BREASTED FRUIT-EATER.**

*Euchlornis aureipectus festiva* TODD, Ann. Carnegie Mus., 8, p. 211, 1912—Cumbre de Valencia, Carabobo, Venezuela (type in Carnegie Museum examined).

*Pipreola aureipectus* (not *Ampelis aureopectus* LAFRESNAYE) SCLATER, Ibis, 1878, p. 171—part, Caracas, Venezuela; idem, Cat. B. Brit. Mus., 14, p. 380, 1888—part, spec. a-g, Caracas, Venezuela.

*Euchlornis aureopectus aureopectus* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 94, 1911—La Cumbre de Valencia, Carabobo (crit.).

Range: Subtropical Zone of coast ranges of northern Venezuela, in state of Carabobo (Cumbre de Valencia) and Distrito Federal (Silla de Caracas; Galipán, Cerro del Ávila).

**\**Euchlornis aureopectus aureopectus* (Lafresnaye). GOLDEN-BREASTED FRUIT-EATER.**

*Ampelis aureo-pectus* LAFRESNAYE, Rev. Zool., 6, p. 68, 1843—Santa Fé de Bogotá; idem, Mag. Zool., (2), 5, cl. 2, pl. 39, 1843—Santa Fé de Bogotá; HARTLAUB, Rev. Mag. Zool., (2), 1, p. 494, 1849—part, Bogotá.

*Pipreola aureipectus* SCLATER, P.Z.S.Lond., 23, p. 153, 1855—Bogotá; idem, Ibis, 1878, p. 171—part, Antioquia and Bogotá, Colombia; idem and SALVIN, P.Z.S.Lond., 1879, p. 380—"Antioquia"=Concordia, Colombia; SCLATER, Cat. B. Brit. Mus., 14, p. 380, 1888—part, spec. h,i, Concordia, Colombia.

*Euchlornis aureipectus aureipectus* TODD, Ann. Carnegie Mus., 8, p. 211 (in text), 1912—Bogotá; Guárico and Anzoátegui, Lara, Venezuela (spec. examined).

<sup>1</sup>*Euchlornis aureopectus festiva* TODD: Adult male similar to *E. a. aureopectus*, but yellow area underneath much larger, extending in a broad zone down to the anal region, only the sides of the breast and flanks being spotted or streaked with green; female not distinguishable. Size perhaps larger on the average.

Various specimens show a few narrow yellow cross-bands on the sides of the neck, and an adult male from Galipán possesses even a well-defined post-auricular band, very nearly as wide as in *E. a. decora*.

Material examined.—Venezuela, Distrito Federal: Galipán, Cerro del Ávila 19; Silla de Caracas 2; La Cumbre de Valencia, Carabobo 15.

Length of wing in adult males in millimeters:

*E. a. aureopectus*.—Bogotá, 90, 93, 94; La Palmita, Santander, 88, 90, 90, 90, 92, 94; Pedregosa, Mérida, 93; Guamito, Trujillo, 92, 92, 96; Anzoátegui, Lara, 90; Guárico, Lara, 90, 94.

*E. a. festiva*.—Galipán, Cerro del Ávila, near Caracas, 89, 90, 91, 91, 94, 94, 95, 95, 96, 96; Cumbre de Valencia, Carabobo, 93½, 95, 95, 95, 97, 99.

Ranges: Subtropical Zone of western Venezuela (in states of Lara, Trujillo, and Mérida) and of the Eastern and Western Andes of Colombia (Bogotá; La Palmita, Santander; Concordia, Antioquia).<sup>1</sup>

2: Venezuela, Mérida (Pedregosa 1; Nevados 1).

***Euchlornis aureopectus decora* (Bangs).<sup>2</sup> SANTA MARTA FRUIT-EATER.**

*Pipreola aureipectus decora* BANGS, Proc. Biol. Soc. Wash., 13, p. 98, 1899—Chirua, Santa Marta region; ALLEN, Bull. Amer. Mus. N.H., 13, p. 155, 1900—Valparaiso and El Libano, Santa Marta region.

*Euchlornis aureopectus decora* TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 332, 1922—El Libano, Valparaiso, Cincinnati, Las Taguas, Las Vegas, San Miguel, and Sierra Nevada de Santa Marta.

Range: Subtropical Zone of Santa Marta Range in northern Colombia.

***Euchlornis frontalis frontalis* Sclater. BOLIVIAN FRUIT-EATER.**

*Euchlornis frontalis* SCLATER,<sup>3</sup> P.Z.S.Lond., 26, p. 446, 1858—Bolivia (descr. of female; type in Derby Museum, Liverpool).

*Pipreola frontalis* SCLATER, Ibis, 1878, p. 169, pl. 6—Tilotilo, Bolivia (descr. of male and female); idem and SALVIN, P.Z.S.Lond., 1879, p. 618—Tilotilo (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 379, 1888—part, spec. b,c, Tilotilo; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Garita del Sol, Vitoc, dept. Junín.

<sup>1</sup>Adult males from the western districts of Venezuela (Guárico and Anzoátegui, Lara; Guamito, Trujillo; Pedregosa, Mérida) agree with a series from the East Colombian Andes (La Palmita, Santander) in having the bright yellow area beneath restricted to throat and foreneck and well defined posteriorly, while the rest of the under parts is heavily spotted or streaked with green, leaving but a narrow, indistinct unmarked pale yellow abdominal line. Only one male from Bogotá and another from La Palmita (Carnegie Museum, No. 55061) approach *E. a. festiva*, being, however, more boldly striped below.

According to Chapman (Bull. Amer. Mus. N.H., 55, p. 551, 1926), the bird from Buenavista, Nariño, southwestern Colombia, previously recorded as *E. jucunda* (l.c., 36, p. 499, 1917), is probably referable to a form of *E. aureopectus*.

Material examined.—Colombia: Bogotá 4; La Palmita, Santander 9.—Venezuela: Guárico, Lara 4; Anzoátegui, Lara 2; Guamito, Trujillo 6; Pedregosa, Mérida 1; Nevados, Mérida 1.

<sup>2</sup>*Euchlornis aureopectus decora* (BANGS): Similar to *E. a. aureopectus*, but somewhat smaller, and adult male with a distinct post-auricular band of bright yellow across sides of neck. Wing 83-88, (female) 84; tail 63-67; bill 12-13. Six specimens from Valparaiso, El Libano, etc., examined.

<sup>3</sup>*Pipreola chlorolepidota* SWAINSON (Anim. Menag., p. 357, Dec., 1837—Peru) appears to have been based on a female of this section, but I cannot make it fit either *frontalis* or *squamipectus*. The passage "chin with a central stripe of orange yellow" would seem to correspond to *frontalis*, while the description of the under parts "yellow, each feather having a green border and an additional blackish lunule in the centre, only seen when the feathers are raised" applies better to *squamipectus*. The type, which is unfortunately lost, probably came from northern Peru, whence no material is available.



*Euchlornis frontalis frontalis* CHAPMAN, Amer. Mus. Novit., 187, p. 6, 1925—Santo Domingo and Río Inambari, Carabaya, Peru.

Range: Southern Peru, in depts. of Junín (Garita del Sol, Vitoc) and northern Puno (Santo Domingo and Río Inambari, northern slope of Sierra de Carabaya), and Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

***Euchlornis frontalis squamipectus* Chapman.<sup>2</sup> SCALY-BREASTED FRUIT-EATER.**

*Euchlornis frontalis squamipectus* CHAPMAN, Amer. Mus. Novit., 187, p. 5, 1925—Zamora, eastern Ecuador; idem, Bull. Amer. Mus. N.H., 55, p. 549, 1926—near Macas and Zamora, Ecuador.

*Pipreola frontalis* (not of SCLATER) SCLATER, Cat. B. Brit. Mus., 14, p. 379, 1888—part, spec. a, Pindo, Ecuador (spec. examined).

Range: Eastern Ecuador (Zamora; Pindo; near Macas).

***Euchlornis formosa*<sup>3</sup> *formosa* (Hartlaub). HANDSOME FRUIT-EATER.**

*Ampelis formosa* HARTLAUB, Rev. Mag. Zool., (2), 1, pp. 275, 493, pl. 14, fig. 1, 1849—Venezuela = Caracas.

*Pipreola formosa* SCLATER and SALVIN, P.Z.S.Lond., 1869, p. 252—Coast Range of Puerto Cabello, Venezuela; SCLATER, Ibis, 1878, p. 168—part, Caracas; idem, Cat. B. Brit. Mus., 14, p. 378, 1888—part, spec. c-e, Caracas and Puerto Cabello.

*Euchlornis formosa* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 93, 1912—Cumbre de Valencia, Carabobo (crit.).

Range: Subtropical Zone of northern Venezuela, from the Distrito Federal (Caracas region) through Carabobo (La Cumbre de Valencia; Las Quiguas) west to Lara (Lagunita de Aroa).<sup>4</sup>

<sup>1</sup>A single male from Junín (Garita del Sol) agrees with others from more southern localities.

Material.—Peru: Garita del Sol, Junín 1; Santo Domingo, Puno 4.—Bolivia: Tilotilo 2; Yungas de Samaipata 1.

<sup>2</sup>*Euchlornis frontalis squamipectus* CHAPMAN: Similar to *E. f. frontalis*, but with decidedly larger (wider) bill; adult male with top and sides of the head antique green, much darker than the bright grass-green back, instead of concolorous with the latter; scarlet throat area less extensive; sides of body more definitely barred with green; female with more yellow about the forehead, and entire under parts, from bill to tail coverts, yellow regularly barred or lunulated with dark green (instead of the upper throat being bright yellow, tinged with scarlet, and the breast uniform dark green). Wing (male) 88, (female) 83; tail 62, (female) 54; bill 11-12.

Material examined.—Ecuador: near Macas 1; Zamora (the type) 1, Pindo 1.

<sup>3</sup>The small grayish horn-color bill, the white apical markings to the tertials, the scarlet jugular spot, and the absence of the blackish lateral border to the orange yellow pectoral area distinguish this rather aberrant species from the large- and orange-billed section (*E. lubomirskii*, *jucunda*, *pulchra*). Its nearest relative is perhaps *E. sclateri* which is, however, much smaller and quite differently colored in the male sex.

<sup>4</sup>Material examined.—Venezuela: La Cumbre de Valencia 42; Las Quiguas 5; Lagunita de Aroa, Lara 3.

**Euchlornis formosa rubidior** *Chapman*.<sup>1</sup> TURUMIQUIRE FRUIT-EATER.

*Euchlornis formosa rubidior* CHAPMAN, Amer. Mus. Novit., 191, p. 10, 1925  
—La Trinidad, near Carapas, Mount Turumiquire, Venezuela.

*Pipreola formosa* (not of HARTLAUB) SCLATER and SALVIN, P.Z.S.Lond., 1868, pp. 168, 172—near Caripé; SCLATER, Ibis, 1878, p. 168—part, descr. et hab. Caripé; idem, Cat. B. Brit. Mus., 14, p. 378, 1888—part, spec. a,b, Caripé.

Range: Subtropical Zone of northeastern Venezuela, in states of Sucre and Monagas (Caripé; Los Palmales; Santa Ana Valley; La Trinidad, near Carapas; Mount Turumiquire).

**\*Euchlornis sclateri** *Cornalia*.<sup>2</sup> SCLATER'S FRUIT-EATER.

*Euchlornis sclateri* CORNALIA, Contrib. Ornith., 1852, p. 133, pl. 101, 1852—  
"Peru" (errore); Quijos, Ecuador, to be regarded as type locality; idem, Rev. Mag. Zool., (2), 5, p. 107, pl. 4, 1853—"Bolivia" (errore).

*Euchlornis sclateri pallidigula* ZIMMER, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 60, 1924—Huachipa, upper Huallaga River, dept. Huánuco, Peru.

*Pipreola sclateri* SCLATER, P.Z.S.Lond., 22, p. 113, 1854—Quijos, Ecuador (crit.); SALVIN, Ibis, 1874, p. 324—Archidona, Ecuador; SCLATER, l.c., 1878, p. 170—eastern Ecuador (monog.); idem and SALVIN, P.Z.S.Lond., 1880, p. 155—Sarayacu, Ecuador; SCLATER, Cat. B. Brit. Mus., 14, p. 379, 1888—Sarayacu and Río Napo, Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 74, 1889—Río Napo.

*Euchlornis sclateri sclateri* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 549, 1926—Río Suno and below San José, Ecuador.

Range: Tropical Zone of eastern Ecuador (Quijos; Archidona; Sarayacu; Río Suno; Río Napo; below San José) and Peru (Huachipa and Pozuzo, dept. Huánuco; Río Perené, dept. Junín).<sup>3</sup>

## 2: Peru (Huachipa 2).

<sup>1</sup>*Euchlornis formosa rubidior* CHAPMAN: Similar to *E. f. formosa*, but white markings on tertials much more restricted, being only about half as wide; remiges, except the four outer primaries, distinctly, though narrowly, margined with white apically; chest spot of male generally less (not more, as stated by Chapman) suffused with orange; female with throat yellowish, spotted or barred with dusky greenish (instead of wholly green or very nearly so). Wing 87-90, (female) 87-89; tail 65-68; bill 11-12.

Material examined.—Venezuela: Santa Ana Valley 1; Los Palmales 3; mountains inland of Cumaná 3.

<sup>2</sup>The small size, the parti-colored bill, and the deep green abdomen, sharply defined against the red chest, distinguish this species from the rest of the genus.

<sup>3</sup>Examination of additional material in the collections at London and Tring shows *E. s. pallidigula* to have been based on individual rather than geographic variation. Birds from Pozuzo (Huánuco) and Perené (Junín) are, so far as coloration is concerned, nowise different from a series of Ecuadorian skins. The only point of distinction that seems to hold is the slightly shorter wing. Five Peruvian

**Euchlornis whitelyi** (*Salvin and Godman*).<sup>1</sup> WHITELY'S FRUIT-EATER.

*Pipreola whitelyi* SALVIN and GODMAN, *Ibis*, (5), 2, p. 449, 1884—Roraima (descr. of female); SALVIN, l.c., 1885, p. 304—Roraima; idem, l.c., 1886, pp. 500, 502, pl. 12 (male, female)—Mount Twék-quay; SCLATER, *Cat. B. Brit. Mus.*, 14, p. 381, 1888—Roraima and Mount Twék-quay.

*Euchlornis whitelyi* CHUBB, *Birds Brit. Guiana*, 2, p. 296, 1921—Mount Twék-quay and Roraima.

Range: Mountains of British Guiana (Roraima and Twék-quay, alt. 3000 to 6000 feet).

**\*Euchlornis arcuata** (*Lafresnaye*). ARCUATE FRUIT-EATER.

*Ampelis arcuata* LAFRESNAYE, *Rev. Zool.*, 3, p. 98, 1843—"Colombie"—Bogotá; idem, *Mag. Zool.*, (2), 5, cl. 2, pl. 40 (=male), 1843—Colombia; HARTLAUB, *Rev. Mag. Zool.*, (2), 1, p. 494, 1849—Colombia; SCLATER and SALVIN, *P.Z.S.Lond.*, 1879, p. 618—Tiltilo, Bolivia.

*Cotinga arcuata* JARDINE, *Contrib. Orn.*, 1849, p. 44—west side of Pichincha, Ecuador.

*Ampelion arcuatus* SCLATER, *P.Z.S.Lond.*, 23, p. 152, 1855—Bogotá; idem, l.c., 26, p. 553, 1858—Matos, Ecuador; idem, l.c., 28, p. 89, 1860—Puellaró, Ecuador; SCLATER, *Cat. B. Brit. Mus.*, 14, p. 375, 1888—Bogotá, Mérida, Intac, Matos, "Quito," Tiltilo (Bolivia); ALLEN, *Bull. Amer. Mus. N.H.*, 2, p. 74, 1889—near Quito; MÉNÉGAUX, *Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat.*, 9, p. B 63, 1911—Gualea, Ecuador; idem, *Rev. Franç. d'Orn.*, 2, p. 8, 1911—Cumpang, n. e. of Tayabamba, Peru; LÖNNBERG and RENDAHL, *Ark. Zool.*, 14, No. 25, p. 75, 1922—below Calacali, south-west side of Mojanda, and road to Gualea, Ecuador.

*Ampelio arcuatus* SCLATER, *Cat. Coll. Amer. Birds*, p. 255, 1862—Matos and Bogotá; SCLATER and SALVIN, *P.Z.S.Lond.*, 1870, p. 781—Upper wood region of Mérida, Venezuela; TACZANOWSKI, l.c., 1874, p. 540—Maraynioc, Peru; idem, l.c., 1882, p. 24—Chachapoyas, Peru; idem, *Orn. Pér.*, 2, p. 379, 1884—Maraynioc and Chachapoyas, Peru; TACZANOWSKI and BERLEPSCH, *P.Z.S.Lond.*, 1885, p. 93—San Rafael, Ecuador; BERLEPSCH and STOLZMANN, l.c., 1896, p. 370—Maraynioc, Peru; GOODFELLOW, *Ibis*, 1901, p. 713—Mindo, near Intac, Gualea, and Baeza, Ecuador.

*Pipreola arcuata* SALVADORI and FESTA, *Boll. Mus. Zool. Torino*, 14, No. 362, p. 17, 1899—Nanegal, Gualea, and Frutillas, Ecuador.

*Euchlornis arcuata* CHAPMAN, *Bull. Amer. Mus. N.H.*, 36, p. 498, 1917—Laguneta, Colombia; idem, l.c., 55, p. 548, 1926—Nono, above Gualea, above

specimens measure: 72, 73, 73, 74, 75, while in eight from Ecuador the figures run from 74 to 78.

Material examined.—Ecuador: Río Suno 2, Río Napo 1, Sarayacu 5.—Peru: Huachipa, Huánuco 2; Pozuzo, alt. 750 meters, Huánuco (Tring Museum) 2; Perené, Junín (adult male, March 10, 1899. P. O. Simons. British Museum) 1.

<sup>1</sup>An isolated species with no near ally.

Material examined.—British Guiana: Roraima (the type) 1, Mount Twék-quay 3.



Mindo, above Nanegal, below Oyacachi, and upper Sumaco, Ecuador;  
BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Pilon, Ecuador.

Range: Upper Subtropical and humid Temperate Zones of the Andes, from extreme western Venezuela (Cordillera de Mérida) and Colombia (Central and Eastern Andes) to northern Bolivia (dept. La Paz).<sup>1</sup>

1: Venezuela (El Valle, Mérida 1).

### Genus **AMPELIOIDES** Verreaux.

*Ampelioides* VERREAUX, Nouv. Arch. Mus. Hist. Nat., 3, Bull., p. 5, 1867—type by monotypy *Ampelioides flavitorques* VERREAUX = *Ampelis cincta* TSCHUDI.

*Stictornis* RIDGWAY, Proc. Biol. Soc. Wash., 18, p. 209, 1905—type by orig. desig. *Ampelis cincta* TSCHUDI.

*Ampeleia* REICHENOW, Journ. Orn., 61, p. 555, 1913—type by orig. desig. *Ampelis cincta* TSCHUDI.

### \**Ampelioides tschudii* (Gray). GIRDLED FRUIT-EATER.

*Ampelis cincta* (not of KÜHL, 1820) TSCHUDI, Arch. Naturg., 9, (1), p. 385, 1843—"in sylvis Pangoae" = Pangoa, east of Tarma, dept. Junín, Peru (descr. of female); idem, Faun. Peru., Aves, p. 136, 1846—Peru.

*Cotinga tschudii* GRAY (and MITCHELL), Genera Birds, 1, p. 279, 1846—new name for *Ampelis cincta* TSCHUDI, preoccupied.

*Ampelioides flavitorques* VERREAUX, Nouv. Arch. Mus. Hist. Nat., 3, Bull., p. 5, pl. 2, fig. 1 (=adult male), 1867—Río Napo, Ecuador (type in Paris Museum examined); NEWTON, Ibis, 1868, p. 222 (crit.).

*Ampelio(n) cinctus* SCLATER, P.Z.S.Lond., 23, p. 152, pl. 104 (male, female), 1855—Bogotá (descr.); idem, l.c., 28, p. 67, 1860—Pallatanga, Ecuador; idem, l.c., 28, p. 89, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Birds, p. 255, 1862—Pallatanga, Bogotá; SCLATER and SALVIN, Exotic Ornith., p. 172, 1869—syn., range; idem, P.Z.S.Lond., 1879, p. 520—Frontino, Colombia; TACZANOWSKI, Orn. Pér., 2, p. 380, 1884—descr. of type from Peru and spec. from Ecuador and Bogotá; SCLATER, Cat. B. Brit. Mus., 14, p. 375, 1888—Pallatanga, Intac, Frontino, Bogotá (monog.); GOODFELLOW, Ibis, 1901, p. 714—Santo Domingo, Ecuador; MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B64, 1911—Gualea; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 76, 1922—road to Nanegal.

*Ampelioides tschudii* HELLMAYR, Verh. Orn. Ges. Bay., 13, p. 110, 1917—Peru, Ecuador, and Colombia (crit., plumages); CHAPMAN, Bull. Amer.

<sup>1</sup>No racial variation is noticeable in a large series from throughout the range.

Material examined.—Venezuela: Culata 3, El Valle 4, "Mérida" 3.—Colombia: Bogotá 7.—Ecuador: above Gualea 4, Mindo 4, Intac 2, near Quito 3, Baeza 2.—Peru: Maraynioc 1.—Bolivia: Cocapata, dept. La Paz 9.

Mus. Nat. Hist., 55, p. 548, 1926—Gualea, Salvias, Las Piñas, Zamora, below Río Sardinias, and near Macas, Ecuador.

*Stictornis cinctus* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 498, 1917—Las Lomitas, San Antonio, and Cocal (Western Andes), Andalucía (Eastern Andes), Colombia.

Range: Subtropical Zone of Colombia, Ecuador, and Peru (south to Junín).<sup>1</sup>

2: Peru (Huachipa, dept. Huánuco 1); Colombia (Bogotá 1).

### Genus *IODOPLEURA* Lesson.

*Iodopleura* LESSON, Rev. Zool., 2, p. 45, 1839—type by orig. desig. *Pardalotus pipra* LESSON.

*Heliophilus* (not of MEIGEN, 1803) DESCOURTILZ, Orn. Brés., livr. 2, p. 22, circa 1854—type by monotypy *Heliophilus taunaysii* DESCOURTILZ = *Pardalotus pipra* LESSON.

### \**Iodopleura pipra pipra* (Lesson). LESSON'S CHATTERER.

*Pardalotus pipra* LESSON, Cent. Zool., p. 81, pl. 26, 1831—"à Trinquemalé sur la côte de Ceylan," coll. Reynaud—errore, we suggest Rio de Janeiro.

*Euphonia aurora* SUNDEVALL, Vetenskaps-Akad. Handl. for 1833, p. 312, pl. 11, fig. 5, 1834—Brazil; GYLDENSTOLPE, Ark. Zool., 19, A, No. 1, p. 71, 1926 (crit.).

*Heliophilus taunaysii* DESCOURTILZ, Orn. Brés., livr. 2, p. 22, pl. 24, fig. 1, circa 1854—Brazil (habits).

*Iodopleura pipra* DES MURS, Icon. Ornith., livr. 12, pl. 71, fig. 2, 1849; BURMEISTER, Syst. Übers. Th. Bras., 3, p. 465, 1856—"Lagôa Santa, Minas Geraes"; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 392, 1888—"Novo" Friburgo, Rio; HARTERT, Katalog Vogels. Senckenb. Mus., p. 106, 1892—"São Paulo"; IHERING, Rev. Mus. Paul., 3, p. 217, 1899—São Paulo (ex HARTERT); idem, l.c., 4, p. 157, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz. 1, p. 315, 1907—range; HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 139, 1915—Braço do Sul, near Victoria, Espirito Santo.

Range: Wooded region of southeastern Brazil, in states of Espirito Santo and Rio de Janeiro (Nova Friburgo, Cantagallo).<sup>2</sup>

1: Brazil ("Rio" skin 1).

<sup>1</sup>Birds from Colombia (Bogotá) average slightly larger than those from more southern localities, but do not differ in coloration. Immature birds have the greater upper wing coverts tipped with yellow, preceded by a black subapical spot.

Material examined.—Colombia: Bogotá 4.—Ecuador: Santo Domingo 3, above Gualea 4, Río Napo 1.—Peru: Huachipa 1.

<sup>2</sup>Its occurrence in São Paulo is still to be confirmed, and Burmeister's record from Lagôa Santa also appears somewhat questionable in view of the fact that the Danish collectors failed to find it in Minas Geraes (see Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 321). Four (out of ten) Rio specimens have

***Iodopleura pipra leucopygia* Salvin.<sup>1</sup> WHITE-RUMPED CHATTERER.**

*Iodopleura leucopygia* SALVIN, Ibis, (5), 3, p. 305, 1885—British Guiana (types in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 393, pl. 26, 1888—British Guiana; CHUBB, Birds Brit. Guiana, 2, p. 304, 1921—British Guiana.

*Iodopleura pipra* (not of LESSON) CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 697, 1848—Demerara, British Guiana.

Range: British Guiana.

***Iodopleura fusca* (Vieillot).<sup>2</sup> DUSKY CHATTERER.**

*Ampelis fusca* VIEILLOT,<sup>3</sup> Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 162, 1817—"Brésil," errore, hab. subst. Cayenne (auct. BERLEPSCH, 1908).

*Pipra laplacei* EYDOUX and GERVAIS, Mag. Zool., 6, cl. 2, pl. 68, 1836—"Guyane"; idem, Voyage Favorite, 5, (2), p. 41, pl. 16, 1839—"Guyane."

*Iodopleura fusca* SALVIN, Ibis, 1885, p. 305—Bartica Grove, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 393, 1888—Bartica Grove, Cayenne, Demerara; BERLEPSCH, Nov. Zool., 15, p. 143, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 171, 1910—interior of Surinam; CHUBB, Birds Brit. Guiana, 2, p. 305, 1921—Makauria River, Demerara, Bartica Grove.

Range: French, Dutch, and British Guiana.

**\**Iodopleura isabellae* Parzudaki.<sup>4</sup> ISABELLA'S CHATTERER.**

traces of a white uropygial band, which is altogether absent in the others. Wing 57-60, (female) 56.

Material examined.—Rio de Janeiro (trade skins) 10, Cantagallo 1, Braço do Sul, Espírito Santo 1.

<sup>1</sup>*Iodopleura pipra leucopygia* SALVIN: Similar to *I. p. pipra*, but slightly smaller; rump with a well-defined white cross-band (from 5 to 6 mm. wide); throat paler, light ochraceous salmon rather than fawn color; sooty edges on under parts decidedly narrower; lower tail coverts likewise paler. Wing (two unsexed adults) 54, 56; tail 30; bill 7.

The types (and only known specimens) are trade skins of the characteristic "Demerara" preparation.

<sup>2</sup>*I. fusca* is very nearly allied to, and agrees with, the better known *I. isabellae* in large size (wing 73-78; tail 38-42), heavy bill, extensive white uropygial area, and lack of salmon color on throat and under tail coverts. It may, however, be distinguished by blackish slate (instead of fuscous or fuscous black) upper parts; absence of white markings on lores, cheeks, and postocular region; more blackish sides of the head; plain fuscous throat, sides of breast, and belly, the flanks being but slightly suffused with white. As in *I. isabellae* the silky tuft on the sides of the breast is violet in the male, white in the female.

While probably subspecifically related one to another, *I. fusca* and *I. isabellae* are doubtless specifically different from *I. pipra*.

Material examined.—British Guiana: Bartica Grove 2, Macauria Creek 1, Demerara 3.

<sup>3</sup>Vieillot's description, though none too good, can hardly apply to another species of the present genus.

<sup>4</sup>*Iodopleura guttata* LESSON (Rev. Zool., 2, p. 45, 1839—"le Sénégal?") may be an earlier name, though the passage "thorax, flanc et ventre grisâtre avec crois-sans bruns" hardly fits the present species. The type is obviously lost.



*Iodopleurus isabellae* PARZUDAKI, Rev. Zool., 10, p. 186, 1847—Río Negro, "in Venezuela," coll. Thirion (type now in Paris Museum).

*Iodopleura isabellae* DES MURS, Icon. Ornith., livr. 12, text to pl. 71, fig. 1, 1849; SCLATER, P.Z.S.Lond., 25, p. 266, 1857—Río Javarri and Río Tocantins; SCLATER and SALVIN, l.c., 1867, p. 579—Río Tocantins; idem, l.c., 1867, pp. 751, 758—Xeberos, Peru; idem, l.c., 1873, p. 285—Xeberos, Chamicuros, Río Javarri; PELZELN, Orn. Bras., 2, p. 126, 1868—Río Vaupé, Brazil; LAYARD, Ibis, 1873, p. 385—Pará; TACZANOWSKI, P.Z.S. Lond., 1882, p. 24—Yurimaguas; idem, Orn. Pér., 2, p. 388, 1884—Xeberos, Chamicuros, Río Javarri, and Yurimaguas, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 393, 1888—Río Tocantins, Xeberos, Chamicuros, Pebas, Río Copotaza; BERLEPSCH, Journ. Orn., 37, p. 303, 1889—Tarapoto, Peru; SNETHLAGE, Journ. Orn., 55, p. 292, 1907—Pará; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 91, 1912—Pará; p. 132, 1912—Island of Marajó; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 358, 1914—Pará, Providencia, Río Tocantins (Cametá, Alcobaça); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 552, 1926—Napo, Ecuador and Barrigon, near Villavicencio, Colombia; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Pinheiro, Pará.

*Iodopleura emiliae* DES MURS, Icon. Ornith., livr. 12, pl. 71, fig. 1, 1849—figure of type.

Range: Northern Brazil (Marajó Island; Pará; Río Tocantins; Río Vaupé; Río Solimões; Río Purús); eastern Peru, north through eastern Ecuador to eastern Colombia (Villavicencio).<sup>1</sup>

1: Peru (Yurimaguas 1).

### Genus CALYPTURA Swainson.

*Calyptura* SWAINSON in RICHARDSON, Faun. Bor.-Amer., 2, p. 491, Feb., 1832—type by orig. desig. *Pardalotus cristatus* VIEILLOT.

### *Calyptura cristata* (Vieillot). SHORT-TAILED CHATTERER.

*Pardalotus cristatus* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 24, p. 528, 1818—"Brésil, coll. Delalande, jr." = Río de Janeiro (type in Paris Museum examined).

*Pipra tyrannulus* (sic) WAGLER, Isis, 1830, p. 940—new name for *Pardalotus cristatus* VIEILLOT.

*Calyptura cristata* SWAINSON, Ornith. Draw., Part 2, pl. 24, 1834; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 448, 1856—Nova Friburgo, Rio; CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 394, 1888—"Novo" Friburgo; IHERING, Rev. Mus. Paul., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 315, 1907—Nova Friburgo, Rio.

<sup>1</sup>Material examined.—Brazil: Pará 1; Benevides, Pará 4; Marajó 1; Río Tocantins 1; Río Vaupé 5; Arimã, Río Purús 5; Tonantins, Río Solimões 1.—Colombia: "Bogotá" 2.—Ecuador: Río Copotaza 1.—Peru: Yurimaguas 1; Chamicuros 2; Xeberos 2.

*Pardalotus coronatus* DESCOURTILZ, Orn. Brés., p. 22, pl. 24, fig. 2, circa 1854—Brazil (habits).

Range: Wooded region of southeastern Brazil, in state of Rio de Janeiro (Cantagallo, Nova Friburgo).<sup>1</sup>

### Genus *ATTILA* Lesson.<sup>2</sup>

*Attila* LESSON, Traité d'Orn., livr. 5, p. 360, end of 1830—type by monotypy  
*Attila brasiliensis* LESSON = *Muscicapa spadicea* GMELIN.

*Dasycephala* SWAINSON, Faun. Bor.-Amer., 2, p. 486, Feb., 1832—type by subs. desig. (GRAY, Cat. Gen. Subgen. Birds, p. 41, 1855) *Tyrannus rufescens* SWAINSON = *Muscicapa spadicea* GMELIN.

*Dasyopsis* REICHENBACH, Av. Syst. Nat., pl. 66, 1850—type by subs. desig. (SCLATER, Cat. B. Brit. Mus., 14, p. 358, 1888) *Attila brasiliensis* LESSON = *Muscicapa spadicea* GMELIN.

### \**Attila spadiceus spadiceus* (Gmelin).<sup>3</sup> POLYMORPHIC *ATTILA*.

*Muscicapa spadicea* GMELIN, Syst. Nat., 1, (2), p. 937, 1789—based on "Yellow-rumped Flycatcher" Latham, Gen. Syn. Birds, 2, (1), p. 354, Cayenne (type in Leverian, now in Vienna Museum examined; = rufous phase).

<sup>1</sup>The range of this rare species is very imperfectly known, the only definite localities on record being Cantagallo and Nova Friburgo, in the hinterland of Rio de Janeiro.

Material examined.—Nova Friburgo 1; Rio (trade skins) 6.

<sup>2</sup>This genus should probably be included among the Tyrannidae.

<sup>3</sup>*Attila spadiceus spadiceus* (GMELIN) offers an almost unique example of polymorphic variation or mutation. Not less than twelve names have been proposed for the various types of coloration, which, in the light of nearly one hundred specimens from the Guianan-Amazonian subregion, prove to be merely phases of a single taxonomic unit. The principal stages may be characterized as follows:

(a) Upper parts decidedly green, varying from dull olive citrine to serpentine green; rump clear yellow; wing bands rather indistinct, varying from buffy olive to dark olive buff and buffy citrine; secondaries scarcely edged with dull brownish exteriorly; tail dusky, frequently with a rusty cast; throat and chest citrine of different shades, more or less variegated with grayish or yellowish streaks; belly white, anteriorly streaked with gray; flanks and under tail coverts more or less tinged with lemon yellow or pale greenish yellow; under wing coverts pale greenish yellow. This is the variation described as *A. brasiliensis*, *A. viridescens*, *A. wighti*, and *A. neoxenus*.

(b) The green of the head, throat, and chest is replaced by gray, and this color also invades, to a varying degree, the dorsal plumage, while the yellowish of the flanks and under wing coverts inclines to a paler tint. This is the stage described as *A. spodiostethus*.

(c) Upper parts brown, varying through every imaginable shade from medal bronze to deep raw umber; wing bands decidedly rufescent, tawny olive to cinnamonaceous; tertiaries and edges of secondaries brown or rufous brown like the back; rump buffy or primuline yellow; tail distinctly rufescent; throat and chest without any green or yellow, being dull gray, streaked with brown; flanks, under tail and wing coverts tinged with buffy or ochraceous. Specimens of this color-type were named *D. uropygialis*.

(d) The entire plumage is invaded by a rufous pigment; the upper parts, including the inner secondaries, deep cinnamon or Prout's brown; the wing bars and the tail tawny; the rump buffy yellow to ochraceous tawny; the sides of the

*Tyrannus rufescens* SWAINSON, Quart. Journ. Sci., Litt., Arts Roy. Inst., 20, No. 40, p. 278, Jan., 1826—locality unknown (=rufous phase).

*Attila brasiliensis* LESSON, Traité d'Orn., livr. 5, p. 360, end of 1830—"Brésil," errore (the type examined in the Paris Museum is from Cayenne; = green phase); LAFRESNAYE, Rev. Zool., 11, pp. 40, 45, 1848—Cayenne (descr. of type); PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, livr. 3, p. 366, 1855 (type stated to be from Cayenne, not from Brazil); SALVIN, Ibis, 1885, p. 303—Bartica Grove and Camacusa, Brit. Guiana (spec. examined); HELLMAYR, Nov. Zool., 13, p. 328, 1906—Cayenne and British Guiana (note on type; variation; descr. of immature plumage); BERLEPSCH, l.c., 15, p. 141, 1908—Roche-Marie, French Guiana (crit.); PENARD and PENARD, Vog. Guyana, 2, p. 162, 1910—Surinam; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 352, 1914—Benevides, Rio Tocantins (Cametá, Alcobaca), Cussary, Monte Alegre, Brazil; BEEBE, Zoologica (N.Y.), 2, p. 94, 1916—Utinga, Pará (habits and song descr.).

head and the ventral surface tawny, paler on the abdomen; under wing coverts ochraceous buff or tawny ochraceous. This mutant was described as *Muscicapa spadicea* and *Attila ruficularis*.

As long ago as 1906, I had called attention to the surprising variation exhibited by a series from British Guiana and eastern Venezuela, and four years later I even cast doubts on the specific distinctness of *A. brasiliensis* and *A. spadiceus*. More recently, E. Stresemann insisted on the mutational nature of this variability, and the careful study of ample material in the present connection fully corroborates his contention.

"Pure-blooded" specimens of the *brasiliensis* type, characterized above under (a), are relatively rare in comparison with the large number of individuals which, by one or more characters, connect them with (b) or (c). To illustrate these facts, we will consider an exceptionally instructive series of twenty-four skins from the lower Tapajóz (Santarém; Diamantina; Colonia do Moju; Itaituba; Villa Braga; Miritituba; Apay), kindly forwarded by Mr. W. E. Clyde Todd, of the Carnegie Museum, Pittsburgh. Five specimens, including the type of *A. viridescens* in the U. S. National Museum, may be termed typical "*brasiliensis*," though there is some slight variation in the shade of the green parts, in the amount of yellowish streaking on the throat, as well as in the width and coloring of the wing bands. In three others, the upper parts are tinged with orange citrine; the rump deeper, more primuline yellow; the tail and inner secondaries more rufescent; the flanks buffy yellow, etc. They mark a decided step in the direction of "*uropygialis*," particularly a female from Santarém (Carnegie Museum, No. 72442), which resembles certain individuals of this "phase" also in the coloring of the throat and chest. Eight additional specimens may be classed as "*uropygialis*." They are distinctly brown above, although not two are of exactly the same shade. The lightest-backed is hardly different from the preceding variety, while the darkest (Carnegie Museum, No. 72811), in its deep raw umber dorsal surface, closely approaches the "*spadiceus*" plumage. The majority of these birds lack any yellow or greenish tints on the anterior lower parts, the throat and chest being dull gray, distinctly or obscurely streaked with brownish olive; others, by their more citrine, yellowish-streaked throats, form the transition to the "*brasiliensis*" stage. An adult from Apay (Carnegie Museum, No. 77759) represents the "*spodiostethus*" plumage, having the head clear gray all round, the throat feathers laterally edged with whitish, and just a faint greenish shade across the chest, differing from the types of that supposed species only by its hair brown (instead of rufescent) tail and brighter green back. There is no doubt that *A. obscurus* was based on an individual of this phase, in which, owing to an influx of phaeomelanin, the greenish of the back and chest has turned to brownish. Three examples, finally, are referable to the rufous (*spadiceus*) variety, for which Stresemann suggests the provisional term "phaeomelanoidism."

The series fully bears out Stresemann's statement that, as far as the upper parts are concerned, an unbroken line can be constructed from the green, brown-



*Dasycephala uropygialis* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 686, 1848—British Guiana (type in Berlin Museum examined; =immature of the brown-backed phase with grayish, brown-streaked anterior under parts).

*Attila spadiceus* LAFRESNAYE, Rev. Zool., 11, p. 46, 1848—Cayenne; SCLATER, P.Z.S.Lond., 27, p. 41, 1859—Cayenne; idem, Cat. Coll. Amer. Birds, p. 195, 1862—Cayenne; PELZELN, Orn. Bras., 2, p. 96, 1868—Barra do Rio Negro = Manáos (spec. in Vienna Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 362, 1888—part, spec. e.g. Iquitos (Peru) and Cayenne; BERLEPSCH, Nov. Zool., 15, p. 142, 1908—Cayenne; SNETHLAGE, Journ. Orn., 56, p. 506, 1908—Itaituba, Rio Tapajóz (spec. examined); PENARD and PENARD, Vog. Guyana, 2, p. 163, 1910—Surinam; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 352, 1914—Providencia, Rio Tapajóz (Santarém, Itaituba), and Obidos; STRESEMANN, Journ. Orn., 73, p. 274, 1925 (crit., variation).

*Attila ruficularis* PELZELN, Orn. Bras., 2, pp. 96, 170, Sept., 1868—Salto do Girão, Rio Madeira (type in Vienna Museum examined; =rufous phase); idem, Ibis, 1873, p. 113; IHERING, Cat. Faun. Braz., 1, p. 311, 1907—"Matto Grosso" (ex PELZELN); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 353, 1914—Rio Madeira (ex PELZELN).

tailed "*brasiliensis*" to the rufous "*spadiceus*" stage, while, seen from below, the latter seems to be separated by a wide gap. Still, a specimen from Tanager, French Guiana (Carnegie Museum, No. 62415) is decidedly intermediate, having the anterior under parts much less tawny, suffused with yellow; the flanks extensively yellow; and the middle of the belly very pale buff (between cartridge buff and cream buff).

The juvenile plumage exhibits much variation in the streaking below, the general tone of coloring, and the rufescence of the tail. The majority of the young birds examined by us correspond to the brown-backed "*uropygialis*" phase, while only two are of the "*spadiceus*" type. Neither the green nor the gray-headed variety is represented in the series, which seems to indicate that the "*brasiliensis*" and "*spodiostethus*" mutants constitute an advanced stage of comparatively recent development.

As to geographic variation, I have not been able to make out any local races. Birds from Amazonia (Pará to the Peruvian border) appear to be inseparable from a Guianan series, and almost every combination of color-characters may be found in any locality, whence a sufficient number of specimens is available. Bolivian examples are not different either, so far as I can see. The type of *A. neoxenus* and an adult female from the Río Surutú are ordinary specimens of the "*brasiliensis*" phase, and can be matched by various individuals in the series from French Guiana and the Tapajóz Valley. The type of *A. arizelus*, a brown-backed example with rufous tail, is very similar to others from Amazonia, particularly one from Santarém, while underneath it is more nearly like a bird from Nova Olinda, Rio Purús. A fourth skin from Bolivia (Río Surutú; Carnegie Museum, No. 79591) belongs to the "*spodiostethus*" phase with gray head and chest, and hardly any yellowish on the flanks, but with the back medal bronze (instead of green) and the tail conspicuously rufescent. With the scanty material at hand it is hardly possible to dispose of the Caribbean form, described as *A. wighti* from a single specimen secured on the Heights of Aripo, Trinidad. In coloration, the type cannot be distinguished from average specimens of the "*brasiliensis*" variety from French Guiana and Amazonia, but is slightly larger. Three adults from the opposite Venezuelan mainland (Cristóbal Colón), however, do not differ in size from the general run of Guianan birds, with which they also agree in coloration. All of them belong to the intermediate type, showing an approach to "*uropygialis*" in the coloring of the dorsal parts, but average more rufous on the tail. An adult male from El Hacha, Bolívar Railroad, state of Lara, is closely similar to the type

*Attila uropygialis* PELZELN, Orn. Bras., 2, p. 96, 1868—Salto do Girão, Rio Madeira (spec. examined); SALVIN, Ibis, 1885, p. 304—Bartica Grove, Brit. Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 360, 1888—Bartica Grove, Carimang River, and Camacusa, Brit. Guiana; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902—Suapure and La Pricion, Caura, Venezuela (spec. examined); PENARD and PENARD, Vog. Guyana, 2, p. 161, 1910—British Guiana; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 255, 1916—Caura River (ex BERLEPSCH and HARTERT).

*Attila spodiostethus* SALVIN and GODMAN, Ibis, (5), 1, p. 209, 1883—Bartica Grove, British Guiana (types in British Museum examined; =grayish

of *A. wighti*, both in color and dimensions. Without further evidence, I am not prepared to separate the Caribbean race, which does not seem to possess a single character of its own.

#### WING MEASUREMENTS OF ADULT BIRDS.

French Guiana.—Males: 85, 85, 85, 86, 87, 90.—Females: 78, 80, 83.  
 Surinam.—Female: 83.  
 British Guiana.—Males: 85, 85, 87, 87, 89.—Females: 80, 81, 83, 85, 87.  
 Río Yuruán, Venezuela.—Male: 85.  
 Caura Valley, Eastern Venezuela.—Males: 84, 87, 90.—Female: 85.  
 Trinidad (type of *A. wighti*).—Male: 93.  
 Cristóbal Colón, Paría Peninsula, Venezuela.—Male: 89.—Females: 84, 85.  
 El Hacha, Lara, Venezuela.—Male: 92.  
 Diamantina, near Santarém, Brazil (type of *A. viridescens*).—Male: 84.  
 Santarém, Brazil.—Males: 83, 84, 85, 87, 87, 88, 90.—Females: 80, 81, 81, 81, 82, 83, 87.  
 Itaituba, Río Tapajóz, Brazil.—Males: 86, 88.  
 Miritituba, Río Tapajóz, Brazil.—Male: 84.  
 Apaçy, Río Tapajóz, Brazil.—Male: 88.  
 Villa Braga, Río Tapajóz, Brazil.—Females: 81, 82.  
 Benevides, Pará, Brazil.—Females: 78, 80.  
 Manáos, Río Negro.—Female: 82.  
 Salto do Girão, Río Madeira.—Males: 85, 82 (type of *A. rufigularis*).  
 Teffé, Río Solimões.—Female: 80.  
 São Paulo de Olivença, Río Solimões.—Males: 79, 86.—Female: 81.  
 Tonantins, Río Solimões.—Males: 86, 86.—Female: 78.  
 Nova Olinda, Río Purús.—Male: 88.  
 Yurimaguas, Peru.—Female: 78.  
 Río Yapacani, Bolivia.—Males: 84 (type of *A. neoxenus*), 91 (type of *A. arizelus*).

Río Surutú, Bolivia.—Females: 88, 88.

Material examined.—French Guiana: Roche-Marie 1; Cayenne (including the types of *M. spadicea* and *Attila brasiliensis*) 5; Saint Jean du Maroni 1; Tama-noir, Mana River 5; Pied Saut, Oyapock 4.—Dutch Guiana: Kwata 1.—British Guiana: Bartica Grove (including the types of *A. spodiostethus*) 5; Caramang River 3; Camacusa 3; unspecified (type of *D. uropygialis*) 1.—Venezuela: Río Yuruán 1; Suapure, Caura 3; La Pricion, Caura 2; San Pedro, Caura 1; Cristóbal Colón, Paría Peninsula 5; El Hacha, Bolívar Railroad, Lara 1.—Trinidad: Heights of Aripo (type of *A. wighti*) 1.—Brazil: Benevides, Pará 2; Santarém 17; Diamantina, near Santarém (type of *A. viridescens*) 1; Itaituba 3; Villa Braga 2; Miritituba 1; Apaçy 1; Obidos 1; Manáos 1; Salto do Girão, Río Madeira (including the type of *A. rufigularis*) 2; Nova Olinda, Río Purús 2; Teffé 1; São Paulo de Olivença, Río Solimões 3; Tonantins, Río Solimões 3.—Peru: Yurimaguas 1.—Bolivia: Río Yapacani (types of *A. arizelus* and *A. neoxenus*) 2; Río Surutú 2.

- phase); SALVIN, l.c., 1885, p. 304—Bartica Grove; SCLATER, Cat. B. Brit. Mus., 14, p. 360, 1888—Bartica Grove; PENARD and PENARD, Vog. Guyana, 2, p. 162, 1910—British Guiana (ex SALVIN and GODMAN).
- Attila citriniventris* (not of SCLATER) TACZANOWSKI, Orn. Pér., 2, p. 371, 1884—part, descr. of juv., Moyobamba, Peru.
- Attila viridescens* RIDGWAY, Proc. U.S.Nat. Mus., 10, "1887," p. 522, Aug., 1888—Diamantina, Santarém (type in U. S. National Museum examined; =green phase); CHAPMAN and RIKER, Auk, 8, p. 25, 1891—Santarém.
- Attila brasiliensis brasiliensis* HELLMAYR, Nov. Zool., 13, p. 329, 1906—British Guiana, Venezuela (Caura River), and Brazil (Salto do Girão); idem, l.c., 17, p. 315, 1910—Salto do Girão, Rio Madeira; MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 12, 1925—Guiana, Venezuela, and northern Brazil (crit.).
- Attila wighti* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 191, 1906—Heights of Aripo, Trinidad (type now in American Museum of Natural History, New York, examined; =green phase).
- Attila spadiceus spadiceus* HELLMAYR, Nov. Zool., 14, p. 51, 1907—Teffé, Rio Solimões; CHUBB, Birds Brit. Guiana, 2, p. 285, 1921—Supenaam and lower Mazaruni River; STRESEMANN, Journ. Orn., 73, p. 276, 1925 (range, synonymy).
- Attila spadiceus rufigularis* HELLMAYR, Nov. Zool., 17, p. 315, 1910—Salto do Girão, Rio Madeira (crit.).
- Attila surinamensis* PENARD and PENARD, Vog. Guyana, 2, p. 163, 1910—Surinam (descr. of an intermediate specimen).
- Attila arizelus* TODD, Proc. Biol. Soc. Wash., 28, p. 169, 1915—Río Yapacani, Bolivia (type in Carnegie Museum examined; =intermediate phase).
- Attila neoxenus* TODD, Proc. Biol. Soc. Wash., 30, p. 4, 1917—Río Yapacani, Bolivia (type in Carnegie Museum examined; =green phase).
- Attila spadiceus uropygialis* CHUBB, Birds Brit. Guiana, 2, p. 286, 1921—numerous localities.
- Attila spadiceus spodiostethus* CHUBB, l.c., p. 288, 1921—Ituribisi River, Supenaam, and Bartica Grove.
- Attila obscurus* SNETHLAGE, Journ. Orn., 73, p. 267, 1925—Acajutuba, lower Rio Negro (=gray-headed phase).

Range: French, Dutch, and British Guiana; Trinidad; Venezuela (Río Yuruán; Suapure, La Pricion, and San Pedro, Caura Valley; Cristóbal Colón, Paría Peninsula; El Hacha, Bolívar Railroad, Lara); northern Brazil, the whole of the Amazon Valley from Pará west to the Rio Solimões, south to the Purús and Madeira Rivers; extreme northeastern Peru (Iquitos; Yurimaguas; Moyobamba); and northern Bolivia (Río Yapacani and Río Surutú, dept. Santa Cruz).

1: Peru (Yurimaguas 1).



***Attila spadiceus uropygiatus* (Wied).<sup>1</sup> WIED'S ATTILA.**

*Muscicapa uropygiata* WIED, Beitr. Naturg. Bras., 3, (2), p. 868, 1831—Rio Doce, Espirito Santo, eastern Brazil (type in American Museum of Natural History, New York, examined).

*Myiarchus uropygiatus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 472, 1856—Rio Doce (ex WIED).

*Attila brasiliensis* (not of LESSON) SCLATER, P.Z.S.Lond., 27, p. 41, 1859—Brazil (spec. examined); idem, Cat. Coll. Amer. Birds, p. 195, 1862—Brazil; idem, Cat. B. Brit. Mus., 14, p. 359, 1888—Bahia, Brazil (spec. examined); ALLEN, Bull. Amer. Mus. N.H., 2, p. 241, 1889—Rio Doce (note on type).

*Attila spadiceus* (not *Muscicapa spadicea* GMELIN) SCLATER, Cat. B. Brit. Mus., 14, p. 362, 1888—part, spec. a-d, Bahia (spec. examined).

*Attila brasiliensis uropygiata* HELLMAYR, Nov. Zool., 13, pp. 329, 330, 1906—Rio Doce, Rio, and Bahia (crit.); MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 12, 1925—eastern Brazil (crit.).

*Attila uropygiata* IHERING and IHERING, Cat. Faun. Braz., 1, p. 310, 1907—Rio, Espirito Santo, and Bahia.

*Attila spadicea uropygiata* STRESEMANN, Journ. Orn., 73, p. 277, 1925—eastern Brazil, north to Bahia.

Range: Wooded coast region of southeastern Brazil, in states of Bahia (Caravellas), Espirito Santo (Rio Doce), and Rio de Janeiro.

**\**Attila spadiceus parvirostris* Allen.<sup>2</sup> SMALL-BILLED ATTILA.**

*Attila parvirostris* ALLEN, Bull. Amer. Mus. N.H., 13, p. 153, 1900—Minca, Santa Marta Region, Colombia (type in American Museum of Natural History, New York, examined).

<sup>1</sup>*Attila spadiceus uropygiatus* (WIED): Similar in coloration to *A. s. spadiceus*, but somewhat larger, with stronger, heavier bill.

The plumage of this form is just as variable as that of its Amazonian representative. Four of the nine specimens examined are in the "*brasiliensis*," four others in the "*spadiceus*" stage, while the remaining example is of the intermediate type. No gray-headed mutant (*spodiostethus*) appears to be on record from eastern Brazil. The smallest individuals are not certainly distinguishable from true *spadiceus*.

Wing of adults (unsexed).—Bahia: 88, 88, 89, 91, 92, 93, 94, 97.—Rio de Janeiro: 95.

<sup>2</sup>*Attila spadiceus parvirostris* ALLEN: Similar to *A. s. spadiceus*, but with larger bill, and in the rufous ("*spadiceus*") phase apparently not distinguishable by any other character; normal type of coloration much like the "*uropygialis*" variant, but upper parts brighter rufous brown (Sudan to amber brown), the pileum frequently duller, rarely dull citrine; throat and chest strongly washed with orange citrine and streaked with dusky, rarely flammulated with grayish, buffy citrine and whitish, or yellowish with dark citrine striations; grayish streaks on upper abdomen absent or barely suggested. Wing (male) 85-91, (female) 82-86; tail 70-73, (female) 66-70; bill 21-22.

There can be little doubt that *A. rufipectus* is merely the rufous phase of *A. parvirostris*. The type of *A. r. confinis*, an immature female, is somewhat darker throughout, but this variation is paralleled in the corresponding stage of *A. s. spadicea*. The Santa Marta series, while fairly constant in the coloration of the dorsal surface (which is much brighter rufous brown than in any specimen of the

History, New York, examined); TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 329, 1922—Minca, Agua Dulce, Don Diego, and Trojas de Cataca, Santa Marta Region (crit.; spec. examined).

*Attila rufipectus* ALLEN, Bull. Amer. Mus. N.H., 13, p. 153, 1900—Las Nubes, Santa Marta Region, Colombia (type in American Museum of Natural History, New York, examined; =rufous phase).

*Attila rufipectus confinis* CORY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 289, 1913—Orope, Zulia, Venezuela (=rufous phase).

*Attila idiotes* TODD, Proc. Biol. Soc. Wash., 29, p. 96, 1916—Fundación, Santa Marta Region, Colombia (type in Carnegie Museum examined); idem and CARRIKER, Ann. Carnegie Mus., 14, p. 331, 1922—Fundación (crit.).

*Attila rufipectus rufipectus* TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 330, 1922—Las Nubes (note on type).

*Attila brasiliensis parvirostris* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—Santa Marta Region (crit.).

*Attila spadicea parvirostris* STRESEMANN, Journ. Orn., 73, p. 277, 1925—Santa Marta.

Range: Tropical Zone of northern Colombia (Santa Marta region) and adjacent section of northwestern Venezuela (Orope, Río Zulia, and Guachi, state of Zulia).

1: Venezuela (Orope, Zulia 1).

### *Attila spadiceus caniceps* Todd.<sup>1</sup> GRAY-HEADED ATTILA.

*Attila caniceps* TODD, Proc. Biol. Soc. Wash., 30, p. 4, 1917—Jaraquiel, dept. Bolívar, Colombia (type in Carnegie Museum examined).

Amazonian form), presents the usual amount of variation below. Only one specimen (Carnegie Museum, No. 42208, Minca) recalls, by its grayish and buffy citrine streaks on throat and chest, certain individuals from Brazil. The majority have these parts strongly washed with orange citrine, differing thereby very markedly from *A. s. spadiceus*. The type of *A. parvirostris*, however, bridges the gap in this respect, being more yellowish on the throat and chest than any other in the present series.

The type of *A. idiotes*, from Fundación, western base of the Santa Marta Mountains, differs by decidedly greenish (somewhat brighter than dull citrine) pileum; slightly lighter, less rufous back; and much brighter Picric yellow ground color of throat and chest. However, an adult male from Guachi, south of Lake Maracaibo, in the coloration of the crown and nape, is halfway between the Fundación bird and a male from Don Diego (Carnegie Museum, No. 44470), while the stronger yellowish suffusion in the orange citrine of the anterior under parts marks another step in the direction of *A. idiotes*. The type, on the dorsal surface, closely resembles specimens from Cristóbal Colón, Paría Peninsula, discussed under *A. s. spadiceus*, and for the present I am inclined to regard it as an extreme variant of *A. s. parvirostris* with which it agrees in proportions and shape of bill.

Material examined.—Venezuela, Zulia: Guachi 1; Orope (type of *A. r. confinis*) 1.—Colombia, Santa Marta region: Las Nubes (type of *A. rufipectus*) 1; Don Diego 3; Minca (including the type of *A. parvirostris*) 5; Trojas de Cataca 1; Fundación (type of *A. idiotes*) 1.

<sup>1</sup>*Attila spadiceus caniceps* TODD: Closely similar to *A. s. sclateri*, of eastern Panama, but pileum grayish (instead of greenish like the upper back); throat

*Attila citreopygus citreopygus* (not *Dasycephala citreopyga* BONAPARTE) CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—part, Puerto Berrio, lower Magdalena, Colombia (spec. examined).

*Attila brasiliensis sclateri* (not of LAWRENCE) MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 12, 1925—part, Puerto Berrio.

Range: Northern Colombia (Puerto Berrio, lower Magdalena, dept. Antioquia; Jaraquiel, dept. Bolívar).

***Attila spadiceus parambae* Hartert.<sup>1</sup> PACIFIC ATTILA.**

*Attila brasiliensis parambae* HARTERT, Bull. Brit. Orn. Cl., 11, p. 39, Dec., 1900—Paramba, prov. Esmeraldas, Ecuador (type in Tring Museum examined); idem, Nov. Zool., 9, p. 610, 1902—Paramba, San Javier, and Pambilar, Ecuador (spec. examined); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 546, 1926—below Mindo, Ecuador.

*Attila sclateri* (not of LAWRENCE) SCLATER, Cat. B. Brit. Mus., 14, p. 361, 1888—part, spec. q, Ecuador; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 134, 1891—part, "eastern" Ecuador.

*Attila fuscicauda* CHAPMAN, Bull. Amer. Mus. N.H., 31, p. 155, 1912—Gallera, Andes west of Popayán, Colombia.

*Attila brasiliensis parambae* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—Gallera, Colombia; MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 12, 1925—western Ecuador and Colombia (crit.).

*Attila spadicea parambae* STRESEMANN, Journ. Orn., 73, p. 277, 1925 (range).

Range: Tropical Zone of western Ecuador and western Colombia, north to the upper Atrato (Quibdó).

and chest streaked with dull (grayish) white and dusky, the latter tinged with dull yellowish citrine. Wing (two males) 87; tail 71, 72; bill 22.

This form is exceedingly close to *A. s. sclateri*, but appears to be separable, as far as one can judge from two specimens. East Panama birds, as a rule have much more yellow on throat and chest, though an adult male from Loma del León (Museum of Comparative Zoology, No. 107265), viewed from below, is an exact duplicate of the Puerto Berrio example which, owing to its fresher plumage, is somewhat more brightly colored throughout than the worn type. On the upper parts, too, *caniceps* can be matched by various specimens of *A. s. sclateri*, although the latter generally has more brownish suffusion. The grayish pileum, however, separates the two Colombian birds from any in the series from eastern Panama.

Material examined.—Colombia: Jaraquiel, dept. Bolívar (the type) 1; Puerto Berrio, lower Magdalena, dept. Antioquia 1.

<sup>1</sup>*Attila spadiceus parambae* HARTERT: Nearest to *A. s. sclateri*, but pileum and back olive green, very rarely tinged with brownish on the lower back; rump lemon yellow (without any buff); tail darker, nearest to sepia; wing bands duller, varying from olive buff to buffy olive (instead of buckthorn brown); under parts similar, viz., throat and chest broadly streaked with yellow and citrine, and abdomen white, but sides and flanks greenish yellow, without any buff suffusion. Wing 87-93, (female) 82-86; tail 69-73, (female) 65-69; bill 21-23.

This form shows very little variation and does not seem to have a rufous phase, not infrequent in the eastern races *A. s. spadiceus* and *A. s. parvirostris*. Specimens from Pacific Colombia agree with the Ecuadorian ones.

Material examined.—Ecuador: below Mindo 2; Paramba (including the type) 2; Pambilar 1; San Javier 1.—Colombia: Juntas, Río Dagua 1; Malagita, Chocó 1; Quibdó, Río Atrato 1.



***Attila spadiceus sclateri* Lawrence.<sup>1</sup> SCLATER'S ATTILA.**

*Attila sclateri* LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 470, 1862—Lion Hill, Panama Railroad (types in American Museum of Natural History, New York, examined); SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 358—Isthmus of Panama; SCLATER, Cat. B. Brit. Mus., 14, p. 361, 1888—part, spec. m-p, San Pablo, Panama; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 134, 1891—part, San Pablo and Lion Hill, Panama; BANGS, Proc. New Eng. Zool. Cl., 2, p. 23, 1900—Loma del León, Panama.

*Attila spadiceus* (not *Muscicapa spadicea* GMELIN) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 327, 1862—Lion Hill, Panama.

*Attila citreopygius* (not *Dasycephala citreopyga* BONAPARTE) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 8, p. 7, 1863—Lion Hill, Panama.

*Attila citreopygus citreopygus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 805, 1907—part, eastern Panama (Lion Hill, Frijole, San Pablo, Panama City); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—part, Río Salaquí, Colombia (spec. examined); STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 269, 1918—Gatún, Panama; HALLINAN, Auk, 41, p. 319, 1924—Cruzes Trail, near Corozal, Panama.

*Attila citreopyga citreopyga* BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 213, 1922—Mount Sapo, Darién (spec. examined).

*Attila brasiliensis sclateri* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 12, 1925—part, northwestern Colombia and eastern Panama (crit.).

Range: Eastern Panama, from the Canal Zone eastwards, and extreme northwestern Colombia (Río Salaquí).

**\**Attila spadiceus citreopygus* (Bonaparte). CITRON-RUMPED ATTILA.**

*Dasycephala citreopyga* BONAPARTE, Compt. Rend. Ac. Sci. Paris, 38, p. 657, 1854—Nicaragua; idem, Not. Orn. Coll. Delattre, p. 86, 1854—Nicaragua.

*Attila citreopygius* (a) SCLATER, P.Z.S.Lond., 27, p. 41, 1859—part, Nicaragua; idem, Ibis, 1859, p. 438—part, Nicaragua; NUTTING, Proc. U.S.Nat. Mus., 6, "1883," p. 385, 1884—Sucuyá, Nicaragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 133, 1891—part, Costa Rica and Chiriquí;

<sup>1</sup>*Attila spadiceus sclateri* LAWRENCE: Most nearly related to *A. s. citreopygus*, but pileum and back olive instead of brown, and blackish streaks restricted to anterior part of crown. Wing 86-91, (female) 82-87; tail 69-74, (female) 67-71; bill 21-25.

While the majority from eastern Panama have much less brown above, the predominating color of pileum and back being olive or dark citrine, there occur certain specimens which, by the Dresden brown tone of the back, are hardly distinguishable from the duller extreme of *A. s. citreopygus*, as represented in a series from Costa Rica. On the other hand, birds from Darién (Río Tuyra; Mount Sapo) and a single adult male from the Río Salaquí, in extreme northwestern Colombia, closely approach *A. s. parambae*, from which they mainly differ by the ochreous tinge on rump and flanks.

Material examined.—Panama: Lion Hill (Loma del León) 9; Frijole, Panama Railroad 1; San Pablo, Isthmus of Panama 1; Tapalisa 1; El Real, Río Tuyra 1; Mount Sapo, Darién 1.—Colombia: Río Salaquí 1.

RICHMOND, Proc. U.S. Nat. Mus., 16, p. 509, 1893—Río Escondido, Nicaragua.

*Attila sclateri* (not of LAWRENCE, 1862) LAWRENCE, Ann. Lyc. Nat. Hist. N. Y., 8, p. 110, 1868—Guaitil, Costa Rica; SALVIN, P.Z.S. Lond., 1867, p. 146—Santa Fé, Veragua and Tucurriquí, Costa Rica; idem, l.c., 1870 p. 196—Calovevora, Veragua and Volcán de Chiriquí, Panama; NUTTING, Proc. U.S. Nat. Mus., 6, "1883," p. 404, 1884—Los Sábalos, Nicaragua; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Naranjo de Cartago, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 361, 1888—part, spec. a-1, Irazú, Tucurriquí, Costa Rica, Volcán de Chiriquí, Calovevora and Santa Fé, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 134, 1891—part, Nicaragua, Costa Rica, Chiriquí, and Calovevora, Veragua; UNDERWOOD, Ibis, 1896, p. 439—Miravelles, Costa Rica; BANGS, Auk, 18, p. 365, 1901—Divala, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 40, 1902—Boquete, Chiriquí.

*Attila tephrocephala* (us) RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 118, 1906—Talamanca, eastern Costa Rica (type in U.S. National Museum examined; =gray-headed variant); idem, Bull. U.S. Nat. Mus., 50, Part 4, p. 804, 1907—Talamanca; CARRIKER, Ann. Carnegie Mus., 6, p. 672, 1910—Talamanca (crit.).

*Attila citreopygia luteola* (us) RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 118, 1906—San José, Costa Rica (type in U.S. National Museum examined); idem, Bull. U.S. Nat. Mus., 50, Part 4, p. 810, 1907—San Carlos, Nicaragua and San José, Costa Rica; BANGS, Auk, 24, p. 303, 1907—Pozo del Río Grande, Costa Rica.

*Attila citreopygus citreopygus* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 805, 1907—part, Nicaragua, Costa Rica, and western Panama (Chiriquí and Veragua); CARRIKER, Ann. Carnegie Mus., 6, p. 670, 1910—Costa Rica (crit.).

*Attila citreopygia citreopygia* BANGS, Auk, 24, p. 303, 1907—Boruca and Pozo del Río Grande, Costa Rica.

*Attila flammulatus citreopygus* BANGS and PENARD, Proc. Biol. Soc. Wash., 35, p. 224, 1922—part.

*Attila brasiliensis citreopygus* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—Pacific side of Canal Zone to Nicaragua (crit.).

Range: Nicaragua, Costa Rica, and western Panama (Chiriquí and Veraguas).<sup>1</sup>

9: Nicaragua (San Gerónimo, Chinandega 1, San Emilio, Lake Nicaragua 1, Matagalpa 1); Costa Rica (Lagarto 1, Cabagre 1, Boca Río Matina 1, Siquirres 1, Orosi 1, unspecified 1).

<sup>1</sup>Study of a very large series shows plainly that there is only one form of *Attila* in southern Central America. The "*luteolus*" type of coloration is not confined to any particular area, but occurs, along with ordinary individuals of *citreopygus* and intermediates, both on the Caribbean and Pacific slope of Costa Rica. A small series from Nicaragua exhibits the same variation. The type of *A. tephrocephala* is merely a gray-headed variant, corresponding to the "*spodiostethus*" phase of the Amazonian *A. s. spadiceus*. It is approached, in one respect or another, by several specimens in the Costa Rican series. Birds from western Panama (Chiriquí), as a whole, agree very well with those from more northern localities,

**\**Attila spadiceus flammulatus* Lafresnaye. FLAMMULATED ATTILA.**

*Attila flammulatus* LAFRESNAYE, Rev. Zool., 11, p. 47, 1848—"Colombia," errore; Vera Cruz, Mexico, substituted by BANGS and PENARD, 1922 (type in Museum of Comparative Zoology, Cambridge, examined).

*Attila hypoxanthus* SALVIN and GODMAN,<sup>1</sup> Biol. Centr.-Amer., Aves, 2, p. 135, 1891—part, type from Vera Paz, Guatemala (= xanthochroic variant).

*Attila mexicanus* NELSON,<sup>2</sup> Proc. Biol. Soc. Wash., 14, p. 172, 1901—Frontera, Tabasco (type in U.S. National Museum examined).

*Attila citreopyga salvini* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 118, 1906—Pasa Nueva, Vera Cruz (type in U.S. National Museum examined); idem, Bull. U.S. Nat. Mus., 50, Part 4, p. 807, 1907—southeastern Mexico, Guatemala, Honduras, and British Honduras (monog.); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Los Amates, San José, Patulul, and Mazatenango, Guatemala; PETERS, Auk, 30, p. 375, 1913—north of Bacalar and Camp Mengel, Quintana Roo.

*Attila citreopygia(us)* (not *Dasycephala citreopyga* BONAPARTE) SCLATER, P.Z.S. Lond., 25, p. 228, 1857—Santecomapám, Vera Cruz; idem, l.c., 27, p. 41, 1859—part, southern Mexico and Guatemala; idem, l.c., p. 366, 1859—Jalapa; idem, l.c., p. 383, 1859—Playa Vicente, Vera Cruz; SCLATER and SALVIN, Ibis, 1859, p. 120—Guatemala; SCLATER, l.c., p. 438—part, southern Mexico and Guatemala; SUMICHRIST, Mem. Bost. Soc. N.H., 1, p. 536, 1869—Vera Cruz; SCLATER and SALVIN, P.Z.S. Lond., 1870, p. 837—Honduras; LAWRENCE, Bull. U.S. Nat. Mus., 4, p. 25, 1876—Santa

though one adult male from Boquete can hardly be told from *sclateri* of the Canal Zone. A single adult male from Veraguas (Natá, Coclé) is difficult to place, but for geographic reasons I refer it to *citreopygus* rather than to *sclateri*.

*A. s. citreopygus* is a rather variable race, and while generally smaller and more olivaceous, less brownish on the head, is sometimes barely distinguishable from *A. s. flammulatus*.

Material examined.—Nicaragua: Sucuyá 1; Los Sábalos 1; Escondido River 2; San Gerónimo, Chinandega 1; Matagalpa 1; San Emilio, Lake Nicaragua 1.—Costa Rica: Pacuaré 1; Jiménez 1; Boca Río Matina 1; Siquirres 1; Orosi 1; El Hogar 2; La Hondura 2; Carrillo 4; Guayabo 3; Bonilla 1; Coliblanco 1; La Vija-gua 1; Cariblanco de Sarapiquí 1; "Talamanca" (type of *A. tephrocephala*) 1; San José (type of *A. citreopyga luteola*) 1; Guaitil 1; Lagarto 1; Cabagre 1; Bebedero 1; Miravelles 1; Bolson 3; Tenorio 1; Pozo Azul de Pirris 1; Pozo del Río Grande 3; Boruca 2; El General 1.—Panama: Almirante Bay 1; Divala 2; Boquete 5; El Banco, Chiriquí 1; Chiriquí 1; Natá, Coclé 1.

<sup>1</sup>*A. hypoxanthus* is merely a "xanthochroic" phase, without any white on the under parts which are continuously clear yellow, with, however, the usual dusky streaks on throat and chest, and ochraceous sides. It is not peculiar to any particular area, but represents a purely individual variant. Specimens in this plumage have been examined from Mazatlán, Sinaloa (*A. s. pacificus*), eastern Guatemala (*A. s. flammulatus*), Costa Rica (*A. s. citreopygus*), and even French Guiana (*A. s. spadiceus*)!

<sup>2</sup>The type (and only available specimen from Tabasco) has the lower throat and chest streaked with tawny brown rather than dusky or citrine, and the ochraceous tawny color of the sides and flanks more extensive than any other specimen. Still I am inclined to attribute these divergencies to individual variation, since birds from Guatemala and Honduras are inseparable from typical *flammulatus*, as represented by a series from Vera Cruz, Puebla, and Chiapas, and the existence of a distinct form in Tabasco seems hardly possible.



Efigenia, Oaxaca; SCLATER, Cat. B. Brit. Mus., 14, p. 361, 1888—part, spec. a, d-j, Jalapa, Choctum, Kamkhal, and Vera Paz, Guatemala; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 133, 1891—part, Jalapa, Santa Efigenia, and Guatemala; LANTZ, Trans. Kansas Ac. Sci., 16, p. 221, 1899—Naranjo, Guatemala; BANGS, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Ceiba, Honduras.

*Attila citreopygus mexicanus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 810, 1907—Frontera, Tabasco (monog.).

*Attila citreopygus gaumeri* (not of SALVIN and GODMAN) RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 811, 1907—part, coast of British Honduras (near Manatee Lagoon).

*Attila flammulatus flammulatus* BANGS and PENARD, Proc. Biol. Soc. Wash., 35, pp. 223, 224, 1922—Vera Cruz and Puebla, south to Honduras (crit.; note on type).

*Attila brasiliensis flammulatus* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—southeastern Mexico to Honduras (crit.).

Range: Southeastern Mexico, in states of Vera Cruz, Puebla, Oaxaca (Tehuantepec), Tabasco, Chiapas, and southern Quintana Roo, and southward through Guatemala and British Honduras to Salvador and Honduras.<sup>1</sup>

7: Mexico (Santa Efigenia, Tehuantepec, Oaxaca 1); Guatemala (Los Amates, Izabal 1, San José, Escuintla 1, Patulul, Sololá 1, Mazatenango 2); Honduras (San Pedro Sula 1).

<sup>1</sup>The type of *A. flammulatus*, supposed to be from "Colombia," proves to be identical with *A. c. salvini*, and aside from its somewhat faded under parts and "foxy" back, agrees perfectly with specimens from Vera Cruz in eastern Mexico. Birds from Guatemala (Pacific and Caribbean slopes) and Honduras appear to be inseparable from those of eastern Mexico, though they possibly average slightly deeper, more rufous brown on the upper parts. Three adults from Tehuantepec (Cacoprieto and Santa Efigenia) likewise belong here. The majority of the examples from British Honduras cannot be distinguished from the general run of *flammulatus*, though one (out of three) from Manatee Lagoon and another from San Felipe, Upper Belize River, are more olivaceous above. However, they can be matched in this respect by various skins from other localities (Jalapa, Vera Cruz, and Honduras). Two adults from southern Quintana Roo, by smaller size and reduction of greenish suffusion on foreneck, form the transition to *A. s. gaumeri*, of Yucatán. A small series from Salvador is rather puzzling. They are much paler and more cinnameous above, and have light ochraceous-tawny tails, more like *A. s. pacificus*, but resemble *A. s. flammulatus* in their bright yellow (instead of ochraceous) rump. It is quite possible that additional material may show them to be separable.

Material examined.—Mexico: Vera Cruz, Pasa Nueva (including the type of *A. c. salvini*) 3, Buenavista 2, Jalapa 1; Metlatoyuca, Puebla 1; Palenque, Chiapas 1; Frontera, Tabasco (type of *A. mexicanus*) 1; Cacoprieto, Tehuantepec, Oaxaca 1; Santa Efigenia, Tehuantepec, Oaxaca 2; Camp Mengel, Quintana Roo 1; twenty miles north of Bacalar, Quintana Roo 1.—Guatemala: Vera Paz 1; pine forests of Choctum 3; Savanna Grande 1; Los Amates, Izabal 1; Escuintla 1; San José, Escuintla 1; Mazatenango 2; Patulul, Sololá 1.—Salvador: Lake Olomega 4; Río San Miguel 1; Hacienda Miraflores, dept. La Paz 2; Hacienda Chilata, dept. Sonsonate 3.—British Honduras: Toledo District 4; San Felipe, Upper Belize River 1; Manatee Lagoon 4.—Honduras: Ceiba 1; Chamelecón 3; Santa Ana 1; San Pedro Sula 2.

***Attila spadiceus gaumeri* Salvin and Godman.<sup>1</sup> GAUMER'S ATTILA.**

*Attila gaumeri* SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 134, 1891—Tizimín, Yucatán.

*Attila citreopygius* (not *Dasycephala citreopyga* BONAPARTE) BOUCARD, P.Z.S. Lond., 1878, p. 449—Tizimín, Yucatán; SCLATER, Cat. B. Brit. Mus., 14, p. 361, 1888—part, spec. b,c, Tizimín; SALVIN, Ibis, 1889, p. 364—Meco, Holbox, and Mujeres Islands, Yucatán (crit.).

*Attila cozumelae* (not of RIDGWAY) SCLATER, Cat. B. Brit. Mus., 14, p. 362, 1888—part, spec. j-n, Holbox, Meco, and Mujeres Islands.

*Attila citreopygus gaumeri* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 811, 1907—part, Yucatán, Meco, Holbox, and Mujeres Islands (monog.).

*Attila brasiliensis gaumeri* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—part, Yucatán; GRISCOM, l.c., 235, p. 15, 1926—Chunyahche and Acomal, Yucatán.

Range: Yucatán, including Holbox, Meco, and Mujeres Islands.

**\**Attila spadiceus cozumelae* Ridgway.<sup>2</sup> COZUMEL ATTILA.**

*Attila cozumelae* RIDGWAY, Descr. New Sp. Birds from Cozumel, p. 3, Feb. 26, 1885—Cozumel Island; idem, Proc. Biol. Soc. Wash., 3, p. 23, 1885—Cozumel; idem, Proc. U.S.Nat. Mus., 8, p. 572, 1885—Cozumel (crit.); SCLATER, Cat. B. Brit. Mus., 14, p. 362, 1888—part, spec. a-i, Cozumel; SALVIN, Ibis, 1889 p. 364—Cozumel (crit.); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 134, 1891—Cozumel.

*Attila* sp. SALVIN, Ibis, 1885, p. 191—Cozumel (crit.; habits).

*Attila citreopygus cozumelae* RIDGWAY, U.S.Nat. Mus., 50, Part 4, p. 812, 1907—Cozumel (monog.).

*Attila brasiliensis cozumelae* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—Cozumel.

Range: Cozumel Island, off Yucatán.

1: Cozumel Island.

***Attila spadiceus pacificus* nom nov.<sup>3</sup> LAWRENCE'S ATTILA.**

*Attila cinnamomeus* (not *Muscicapa cinnamomea* GMELIN) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 10, p. 8, 1871—Mazatlán, Sinaloa (types in U.S.

<sup>1</sup>*Attila spadiceus gaumeri* SALVIN and GODMAN: Very close to *A. s. flammulatus*, but smaller, with proportionately larger bill; upper parts on average paler; throat and chest streaked with grayish instead of with dusky, and barely, if at all, tinged with pale sulphur yellowish. Wing 89-92, (female) 83-87; tail 73-81, (female) 68-74; bill 24-26.

Material examined.—Yucatán: Puerto Morelos 2; Chichen-Itza 1; unspecified 1.

<sup>2</sup>*Attila spadiceus cozumelae* RIDGWAY: Very similar to *A. s. gaumeri*, particularly below, but rump ochraceous tawny (instead of yellow ochre), and sides, axillaries, and under wing coverts deeper, cinnamon buff or ochraceous buff (instead of yellowish buff or buff yellow). Wing 89-92, (female) 81-88; tail 72-76, (female) 62-73; bill 24-26.

Material examined.—Cozumel Island 9.

<sup>3</sup>*Attila spadiceus pacificus* HELLMAYR: Nearly allied to *A. s. flammulatus*, but upper parts much lighter and more cinnamomeous (tawny brown or ochra-

National Museum examined); idem, Mem. Bost. Soc. N.H., 2, p. 285, 1874—Mazatlán (habits); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 135, 1891—Santiago (Tepic), Beltran, Hacienda de San Marcos, and Tonilá (Jalisco), Santiago (Colima), Omiteme, Amula, and Rincón (Guerrero), and Juchatengo and Sola (Oaxaca); MILLER, Bull. Amer. Mus. N.H., 21, p. 356, 1905—Sierra de Juan de Lisiarraga, Sinaloa.

*Attila hypoxanthus* SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 135, 1891—part, spec. from Venta de Pelegrino, Guerrero (=xanthochroic variant).

*Attila citreopygus cinnamomeus* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 809, 1907—Pacific slope of Mexico (monog.).

*Attila flammulatus cinnamomeus* BANGS and PENARD, Proc. Biol. Soc. Wash., 35, p. 224, 1922—Pacific slope of Mexico.

*Attila brasiliensis cinnamomeus* MILLER and GRISCOM, Amer. Mus. Novit., 183, p. 13, 1925—Pacific slope of Mexico (crit.).

Range: Pacific slope of Mexico, in states of Sinaloa, Nayarit, Jalisco, Colima, Guerrero, and western Oaxaca.

\**Attila bolivianus bolivianus* Lafresnaye. BOLIVIAN ATTILA.

*Tyrannus rufescens* (not of SWAINSON, 1826) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 44, 1837—Guarayos, Bolivia (types in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 308, 1839—Guarayos, Moxos, and Chiquitos, Bolivia.

*Attila bolivianus* LAFRESNAYE, Rev. Zool., 11, p. 46, 1848—new name for *Tyrannus rufescens* LAFRESNAYE and D'ORBIGNY, preoccupied; HELLMAYR, Verh. Zool. Bot. Ges. Wien, 52, p. 97, 1902 (crit., synonym.); idem, Nov. Zool., 13, p. 330, 1906—Guarayos, Bolivia (crit.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 310, 1907—part, Bolivia and Matto Grosso; SNETHLAGE, Journ. Orn., 56, p. 13, 1908—Cachoeira, Rio Purús (spec. examined); idem, Bol. Mus. Goeldi, 8, p. 353, 1914—Cachoeira, Rio Purús.

*Attila validus* PELZELN, Orn. Bras., 2, pp. 96, 169, 1868—Villa Maria [=São Luiz de Cáceres], Engenho do Gama, and [Villa Bella de] Matto Grosso, Matto Grosso (spec. in Vienna Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 364, 1888—Matto Grosso and Bolivia; ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Chapada, Matto Grosso.

*Attila bolivianus bolivianus* HELLMAYR, Nov. Zool., 17, p. 316, 1910 (range, crit.); idem, l.c., 32, p. 21, 1925—Guarayos, Bolivia, Matto Grosso, and Sarayacu, Río Ucayali, Peru (crit.).

ceous brown), even the pileum often cinnamomeous like the back; rump and tail coverts ochraceous or yellow ocher; tail uniform ochraceous tawny, without any brownish or dusky shade; foreneck and chest very slightly, if at all, tinged with sulphur yellow; sides and flanks a rule deeper ochraceous tawny.

This well-marked race had to be renamed, since Lawrence's specific term turned out to be preoccupied in the genus by *Muscicapa cinnamomea* Gmelin, an earlier name for *Attila thamnophiloides* (Spix).

Material examined.—Sinaloa: "Mazatlán" (the types) 2.—Jalisco: San Sebastián 2.—Guerrero: Omiteme 1; Acahuizotla 1; Egidio Nuevo 1; Coquillo 1; Coyuca 1; Papayo 6.



Range: Southwestern Brazil, in state of Matto Grosso (Chapada; Descalvados; São Luiz de Cáceres; Engenho do Gama and Villa Bella de Matto Grosso, Rio Guaporé), and lowlands of eastern Bolivia (Chiquitos; Moxos; Guarayos; mouth of Río San Antonio, Río Espíritu Santo; Buenavista, dept. Santa Cruz), north to the upper Purús (Cachoeira) and Sarayacu, Río Ucayali, eastern Peru.<sup>1</sup>

1: Bolivia (Buenavista, dept. Santa Cruz 1).

***Attila bolivianus nattereri* Hellmayr.<sup>2</sup> NATTERER'S ATTILA.**

*Attila nattereri* HELLMAYR, Verh. Zool. Bot. Ges. Wien, 52, p. 95, 1902—Borba, Rio Madeira (type) and Pará, Brazil; IHERING and IHERING, Cat. Faun. Braz., 1, p. 311, 1907 (range); SNETHLAGE, Journ. Orn., 61, p. 526, 1913—Monte Alegre (Cussary?) and Faro; idem, Bol. Mus. Goeldi, 8, p. 353, 1914—Monte Alegre and Faro (Rio Jamundá).

*Attila bolivianus* (not of LAFRESNAYE) PELZELN, Orn. Bras., 2, p. 96, 1868—Borba and Pará (spec. examined); IHERING and IHERING, Cat. Faun. Braz., 1, p. 310, 1907—part, Borba and Pará.

*Attila bolivianus nattereri* HELLMAYR, Nov. Zool., 17, pp. 315, 316, 1910—Borba, Rio Madeira (range); idem, Abhandl. Bayr. Ak. Wiss., Math. phys. Kl., 26, No. 2, p. 91, 1912—Pará.

Range: Northern Brazil, on the banks of the lower Amazon, from Pará to Borba, Rio Madeira.

**\**Attila rufus* (Vieillot). GRAY-THROATED ATTILA.**

*Muscicapa cinerea* (not of P. L. S. MÜLLER, 1776) GMELIN, Syst. Nat., 1, (2), p. 933, 1789—based on "Le Gobe-mouche roux, de Cayenne" BRISSON, Orn., 6, Suppl., p. 51, pl. 3, fig. 3, 1760, Cayenne (errore); SPIX, Av. Bras., 2, p. 19, pl. 26, fig. 2, 1825—"in sylvis Brasiliae" (spec. in Munich Museum examined); WIED, Beitr. Naturg. Bras., 3, (2), p. 853, 1831—southeastern Brazil.

<sup>1</sup>Birds from Bolivia (*bolivianus*) and Matto Grosso (*validus*) agree well together, although the latter are on average slightly paler above, with the pileum somewhat more grayish. A single specimen from the Rio Purús (Cachoeira) resembles those from Matto Grosso, whereas a male from Sarayacu, Peru, in its brownish head, is more like the types from Guarayos.

Material examined.—Brazil: Descalvados 1; Villa Bella de Matto Grosso 3; Engenho do Gama, Rio Guaporé 1; São Luiz de Cáceres 5; Cachoeira, Rio Purús 1.—Bolivia: Guarayos (the types) 3; mouth of Río San Antonio, Río Espíritu Santo 1; Buenavista 1.—Peru: Sarayacu, Ucayali 1.

<sup>2</sup>*Attila bolivianus nattereri* HELLMAYR: Similar to *A. b. bolivianus*, but smaller and much darker throughout; pileum sepia rather than Dresden brown; sides of the head cinnamon brown rather than buckthorn brown; back and margins to rectrices much more deeply colored and more olivaceous, less cinnamonaceous; rump, tail, and under parts much deeper rufous. Wing 91-93 (against 94-100, in *A. b. bolivianus*); tail 76-81; bill 23-25.

Material examined.—Brazil: Pará 1; "Monte Alegre", lower Amazon 2; Borba, Rio Madeira (the types) 2.

*Tyrannus rufus* VIEILLOT,<sup>1</sup> Nouv. Dict. Hist. Nat., nouv. éd., 35, p. 87, 1819—"le Brésil, d'où il a été apporté par M. Delalande fils"—Rio de Janeiro (types in Paris Museum examined).

*Attila griseigularis* BERLEPSCH, Ibis, (5), 3, p. 290, 1885—"Santa Catharina, Brazil (?)" (type in Berlepsch Collection examined); HOLT, Bull. Amer. Mus. N.H., 57, p. 310, 1928—Serra do Itatiaya.

*Tyrannus cinereus* SWAINSON, Quart. Journ. Sci., Litt., and Arts Roy. Inst., 20, No. 40, p. 278, Jan., 1826—Brazil.

*Attila rufus* LAFRESNAYE, Rev. Zool., 11, p. 46, 1848—Brazil.

*Dasycephala cinerea* BURMEISTER, Syst. Übers. Th. Bras., 3, p. 85, 1856—Brazil; CABANIS, Journ. Orn., 22, p. 86, 1874—Cantagallo, Rio.

*Attila cinereus* SCLATER, P.Z.S.Lond., 27, p. 41, 1859—southern Brazil; PELZELN, Orn. Bras., 2, p. 95, 1868—Sapitiba, Registo do Sai, Rio de Janeiro, Mattodentro and Ypanemá, São Paulo, and Paranaguá, Paraná (spec. examined); SCLATER, Cat. B. Brit. Mus., 14, p. 363, 1888—Bahia and São Paulo, Brazil; IHERING, Rev. Mus. Paul., 3, p. 214, 1899—part, Iguapé, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; EULER, l.c., p. 54, 1900—Brazil (nest and eggs descr.); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 651, 1906—southeastern Brazil (variation, crit.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 310, 1907—Cachoeira, Iguapé, Ubatuba (São Paulo), Porto Cachoeiro (Espírito Santo), Bahia and Joinville (Santa Catharina); LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia; MIRANDA RIBEIRO, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Monte-Serrat, Itatiaya; PINTO-PEIXOTO, l.c., p. 262, 1923—Itatiaya.

*Attila cinerea* PELZELN, Nunq. Otios., 2, p. 291, 1874—Nova Friburgo, Rio.

Range: Wooded region of southeastern Brazil, from southern Bahia to Santa Catharina.<sup>2</sup>

2: Brazil (Bahia 1; Rio de Janeiro 1).

<sup>1</sup>Examination of the types (Nos. 3843-44, of the mounted bird collection) shows the description to be inaccurate in several respects, the back being amber brown (passing into ochraceous tawny on the rump) and by no means "brun verdâtre," while the central rectrices do not differ in color from the lateral ones. In other words, they agree in every way with specimens from Rio de Janeiro and São Paulo, which the adult bird (No. 3844) further resembles in having the entire throat and foreneck whitish gray, streaked with dusky.

<sup>2</sup>Birds from Rio de Janeiro (including the types) and São Paulo agree very well together, the throat and foreneck being grayish white, streaked with dusky, and the remainder of the under parts nearly uniform tawny, the abdomen but little paler than the breast. The type of *A. griseigularis*, purchased from a dealer and said to be from "Santa Catharina," merely differs by having the middle of the belly much paler, almost lemon yellow. In this respect, it is closely matched by an adult male from Paranaguá, Paraná, and in my revision of Spix's types (Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 652, 1906) I have, accordingly, proposed to separate the birds from extreme southern Brazil under Berlepsch's term. However, an adult from Joinville, Santa Catharina, examined since does not bear out this difference, and seems to be indistinguishable from Rio examples. Bahia skins, which Count Berlepsch, when describing *A. griseigularis*, took for

***Attila citriniventris* Sclater.<sup>1</sup> CITRON-BELLIED ATTILA.**

*Attila citriniventris* SCLATER, P.Z.S.Lond., 27, p. 40, 1859—Río Ucayali, eastern Peru; PELZELN, Orn. Bras., 2, p. 96, 1868—Rio Vaupé, Brazil (spec. examined); TACZANOWSKI, Orn. Pér., 2, p. 371, 1884—part, descr. of type only, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 363, 1888—upper Peruvian Amazon; BERLEPSCH, Journ. Orn., 37, p. 303, 1889—Shanusi, near Yurimaguas, Peru (spec. examined).

Range: Upper Amazonia, in eastern Ecuador, northeastern Peru (Río Ucayali; Shanusi, near Yurimaguas, lower Huallaga), and northwestern Brazil (Rio Vaupé, an affluent of the upper Rio Negro).

***Attila phoenicurus* Pelzeln.<sup>2</sup> RUFOUS-TAILED ATTILA.**

*Attila phoenicurus* (NATTERER MS.) PELZELN, Orn. Bras., 2, pp. 96, 171, Sept., 1868—banks of the Rio Parahyba near Mattodentro (São Paulo), Curitiba (Paraná), Goyaz, and [Villa Bella de] Matto Grosso (Matto Grosso); I select Mattodentro as type locality (spec. in Vienna Museum examined); HELLMAYER, Verh. Zool. Bot. Ges. Wien, 52, p. 97, 1902 (crit.); IHERING, Rev. Mus. Paul., 6, p. 350, March, 1905—Ubatuba, São Paulo (spec. examined); idem, Cat. Faun. Braz., 1, p. 311, 1907—Ubatuba.

typical *cinereus*, have the grayish gular area restricted to the chin and upper throat, and were it not for a Rio specimen, which is practically identical, I would not hesitate to discriminate a northern race. More satisfactory and properly labeled material is required in order to determine any possible local forms.

Material examined.—Bahia (trade skins) 5.—Rio de Janeiro (including the types) 8; Sapitiba, Rio 2; Registro do Sai, Rio 1; Ipanemá, São Paulo 1; Iguapé, São Paulo 1; Paranaguá, Paraná 1; Joinville, Santa Catharina 1; "Santa Catharina (?)" (type of *A. griseigularis*) 1.

<sup>1</sup>*Attila citriniventris* SCLATER: Nearest to Bahia specimens of *A. rufus* in having merely the chin and upper throat grayish white, and the pileum including the hind neck gray with dusky shaft-streaks; but much smaller, with differently shaped bill (shorter, wider at base, and more constricted apically); chest only tawny ochraceous; breast and abdomen medially yellow, tinged with ochraceous tawny along flanks and on under tail coverts. Wing (♀ ad., Yurimaguas) 82, (♂ imm., Rio Vaupé) 85; tail 63, (Rio Vaupé) 72; bill 18½, (Rio Vaupé) 20.

The Rio Vaupé bird differs from the two others by reason of longer tail, darker (less yellowish) rump, more brownish pileum and sides of head, buffy whitish (instead of grayish) upper throat, and darker abdomen.

A little-known species of uncertain affinities, of which more material is much desired.

Material examined.—Peru: Shanusi, near Yurimaguas 1.—Ecuador: "Oriente" (unspecified) 1.—Brazil: Rio Vaupé 1.

<sup>2</sup>*Attila phoenicurus* PELZELN, a very distinct species, is immediately recognizable by the strongly defined grayish brown hood embracing the top and sides of the head, the chestnut cinnamon back, and the somewhat paler under parts. The bill, though variable in shape, is much shorter than in any other species, and leads to the allied genus *Casiornis*. Wing (five males) 91-95, (two females) 88, 92; tail 77-85; bill 17-19.

Material examined.—Goyaz City 1; Villa Bella de Matto Grosso, Matto Grosso 1; Curitiba, Paraná 4; Mattodentro, São Paulo (type) 1, all in the Vienna Museum; Ubatuba, São Paulo (Museu Paulista, No. 5475) 1.



Range: Southern Brazil, in states of Matto Grosso (Villa Bella de Matto Grosso), Goyaz (Goyaz City), São Paulo (Mattodentro and Ubatuba), and Paraná (Curitiba).

**\**Attila cinnamomeus cinnamomeus* (Gmelin). CINNAMOMEOS ATILLA.**

*Muscicapa cinnamomea* GMELIN, Syst. Nat., 1, (2), p. 937, 1789—based on "Cinnamon Flycatcher" LATHAM, Gen. Syn. Birds, 2, (1), p. 354, Cayenne.<sup>1</sup>

*Muscicapa thamnophiloides* SPIX, Av. Bras., 2, p. 19, pl. 26, fig. 2, 1825—"in locis sylvaticis fl. Amazonum" (type in Munich Museum examined).

*Tyrannus rutilus* LESSON, Écho du Monde Sav., 11, 2nd sem., No. 11, p. 254, 1844—Cayenne, French Guiana; idem, Oeuvr. Buffon, éd. Lévêque, 20, (Descr. Mammif. et Ois.), p. 310, 1847—Cayenne.

*Attila rutilus* LAFRESNAYE, Rev. Zool., 11, p. 47, 1848—French Guiana (ex Lesson).

*Lanius unirufus* (CUVIER MS.) PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, p. 332, 1855—Cayenne (type in Paris Museum examined); HELLMAYR, Nov. Zool., 13, p. 330, 1906 (crit.).

*Thamnophilus strenuus* SCLATER, Cat. Coll. Amer. Birds, p. 173, 1862—Cayenne.

*Dasycephala thamnophiloides* CABANIS, Arch. Naturg., 13, (1), p. 222, 1847—part, excl. ref. to SWAINSON and D'ORBIGNY; idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 686, 1848—coastal forests of British Guiana; BURMEISTER, Syst. Übers. Th. Bras., 3, p. 86, 1856—in part.

*Dasycephala cinnamomea* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 35, 1857—Cayenne.

*Attila thamnophiloides* SCLATER, P.Z.S.Lond., 27, p. 41, 1859—interior of Brazil; idem and SALVIN, l.c., 1866, p. 187—Sarayacu, Peru; idem, l.c., 1867, p. 577—Mexiana; idem l.c., 1873, p. 285—Sarayacu, Peru (crit.); PELZELN, Orn. Bras., 2, p. 96, 1868—Borba, Rio Madeira, and Cayenne (spec. examined); LAYARD, Ibis, 1873, p. 385—Pará; TACZANOWSKI, Orn. Pér., 2, p. 372, 1884—Sarayacu, Peru; SALVIN, Ibis, 1885, p. 304—British Guiana (ex SCHOMBURGK); SCLATER, Cat. B. Brit. Mus., 14, p. 364, 1888—Demerara, Cayenne, Mexiana, Elvira, Samiria, Sarayacu, Ucayali; GOELDI, Ibis, 1897, p. 161—Amapá, northern Pará; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 651, 1906—note on Spix's type (crit.); idem, Nov. Zool., 14, p. 13, 1907—Itaituba, Rio Tapajóz; idem, l.c., 14, p. 364, 1907—Borba, Rio Madeira; IHERING and IHERING, Cat. Faun. Braz., 1, p. 311, 1907—range; SNETHLAGE, Journ. Orn., 55, p. 291, 1907

<sup>1</sup>Although the type, formerly in the Leverian Museum, appears to be lost, Latham's description fits *Attila thamnophiloides* in every detail except for the statement that the wing coverts are tipped with yellow, which may be due to a pen-slip or to the faded condition of the specimen. It will be noticed that Latham places it next to the "Yellow-rumped Flycatcher" [= *Attila s. spadiceus*,] for which he gives as patria "Inhabits Cayenne, with the last" [= Cinnamon Flycatcher], the two only species of *Attila* known to occur in French Guiana.

—Amapá, Pará, Marajó, Monte Alegre (food); idem, l.c., 56, p. 506, 1908—Goyana, Rio Tapajóz; BERLEPSCH, Nov. Zool., 15, p. 142, 1908—Cayenne and Approuague, French Guiana; HELLMAYR, Nov. Zool., 17, p. 315, 1910—Borba, Rio Madeira; PENARD and PENARD, Vog. Guyana, 2, p. 160, 1910—Surinam (nest and egg descr.); HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 34, 91, 1912—Ipitinga, Rio Acará; p. 120, 1912—Mexiana; SNETHLAGE, Journ. Orn., 61, p. 525, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 353, 1914—Pará, Quati-purú, Cussary, Rio Tapajóz (Goyana), Amapá, Marajó (São Natal), Rio Jary (Santo Antonio da Cachoeira), Arumanduba, Monte Alegre, Rio Jamundá (Faro); BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 71, 1918—vicinity of Paramaribo and Javaweg, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 289, 1921—Ituribisi River, Supenaam, Mazaruni River, Bartica, Bonasika River, Abary River, Anarika River; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 64, 1926—Tury-assú, Maranhão; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Rio Inhangapy, Pará.

*Attila thamnophiloides thamnophiloides* HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 344, 1929—Tury-assú, Maranhão.

Range: French, Dutch, and British Guiana, and the whole valley of the Amazon, including its tributaries, from northern Maranhão (Tury-assú) west to northeastern Peru (Elvira and Samiria, Río Marañón; Sarayacu, Ucayali; Lagunas, lower Huallaga).<sup>1</sup>

3: Dutch Guiana (vicinity of Paramaribo 1); Brazil (Tury-assú, Maranhão 1); Peru (Lagunas, lower Huallaga 1).

### ***Attila cinnamomeus torridus* Sclater.<sup>2</sup> FRASER'S ATTILA.**

*Attila torridus* SCLATER, P.Z.S.Lond., 28, p. 280, 1860—Babahoyo, Ecuador; SCLATER and SALVIN, l.c., 1878, p. 139—Santa Rosa, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 372, 1884—Babahoyo; SCLATER, Cat. B. Brit. Mus., 14, p. 365, 1888—Babahoyo, San Lucas, and Santa Rita, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—Vinces and Río Peripa; HARTERT, Nov. Zool., 9, p. 611, 1902—San Javier and Pambílar, prov. Esmeraldas (spec. examined); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 546, 1926—Esmeraldas, Manaví, Daule, La Chonta, and Alamor, Ecuador.

Range: Tropical Zone of western Ecuador, from Esmeraldas to Loja (Alamor).

### Genus **CASIORNIS** Des Murs.

*Casiornis* (BONAPARTE MS.) DES MURS in CASTELNAU, Exp. Amér. Sud, Ois., p. 55, June, 1856—type by monotypy *Casiornis typus* DES MURS.

<sup>1</sup>Examination of thirty-nine specimens from Guiana and Amazonia fails to reveal any geographic variation. Peruvian birds, by paler rump and posterior under parts, form the transition to *A. c. torridus*.

<sup>2</sup>*Attila c. torridus* differs from the typical race by much lighter coloration and blacker wing coverts, with much narrower, paler apical margins.

Material examined.—Ecuador, prov. Esmeraldas: Pambílar 3, San Javier 3.

\**Casiornis rufa* (Vieillot). RUFOUS CASIORNIS.

*Thamnophilus rufus* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 3, p. 316, 1816—based on "Batara roxo" AZARA, No. 218 [=No. 217 in Walckenaer-Sonnini's French edition], Paraguay.

*Thamnophilus rutilus* (not of VIEILLOT, 1816) VIEILLOT, Tabl. Enc. Méth., Orn., 2, p. 747, 1822—based on "Batara roxo" AZARA—erroneously quoted as No. 215—Paraguay.

(?) *Muscicapa rubra* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 22, p. 457, 1818—based on "Suiriri roxo" AZARA, No. 188, Paraguay.

*Dasycephala haematodes* CABANIS, Arch. Naturg., 13, (1), p. 222, 1847—Brazil.

*Tyrannula rufula* HARTLAUB, Rev. Mag. Zool., (2), 4, p. 6, 1852—Brazil.

*Casiornis typus* (BONAPARTE MS.) DES MURS in CASTELNAU, Exp. Amér. Sud, Ois., p. 55, pl. 18, fig. 1, 1856—Goyaz (type in Paris Museum examined).

*Tyrannus rufus* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 44, 1837—Yungas and Chiquitos, Bolivia (spec. in Paris Museum examined).

*Tyrannus thamnophiloides* (not *Muscicapa thamnophiloides* SPIX) D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 308, 1839—Yungas and Chiquitos, Bolivia.

*Dasycephala rubra* BURMEISTER, Syst. Übers. Th. Bras., 3, p. 86, 1856—"St. Paulo, St. Catharina, Montevideo" (errore).

*Casiornis rubra* SCLATER, P.Z.S.Lond., 27, p. 41, 1859 (synonymy); PELZELN, Orn. Bras., 2, p. 96, 1868—Porto do Rio Paraná (São Paulo), Goyaz and Ponte Alta (Goyaz), Engenho do Gama (Matto Grosso), Brazil; REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 361—Faz. Mocambo and Faz. Roça (Minas Geraes), Batataes (São Paulo), Catalão (Goyaz); SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 618—Yungas and Chiquitos, Bolivia; SCLATER and HUDSON, Arg. Orn., 1, p. 163, 1888—Campo Colorado, Orán, Salta; SCLATER, Cat. B. Brit. Mus., 14, p. 365, 1888—Goyaz, Brazil, and Orán, Argentina; KERR, Ibis, 1892, p. 131—near Fortin Donovan, lower Pilcomayo; ALLEN, Bull. Amer. Mus., N.H., 5, p. 110, 1893—Chapada, Matto Grosso; SALVADORI, Boll. Mus. Zool. Torino, 10, No. 208, p. 11, 1895—Baranquera la Novia and Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 17, 1897—San Francisco, Bolivian Chaco; idem, l.c., 15, No. 378, p. 7, 1900—Urucúm, Matto Grosso; BRUCH, Rev. Mus. La Plata, 11, p. 256, 1904—Orán, Salta; IHERING and IHERING, Cat. Faun. Braz., 1, p. 311, 1907—Jaboticabal, Rincão, Avanhadava, Bebedouro, and Itapura, São Paulo; GRANT, Ibis, 1911, p. 125—Puerto San Juan, Paraguay; BERTONI, Faun. Parag., p. 58, 1914—Asunción.

*Casiornis rufa rufa* HELLMAYR, Nov. Zool., 15, p. 56, 1908—Goyaz, Rio Thesouras, Rio Araguaya, and Fazenda Esperança, Goyaz; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 312, 1910—Orán, Salta, and lower Pilcomayo; HELLMAYR, Nov. Zool., 32, p. 22, 1925—Yungas, Bolivia (crit.).

*Casiornis rufus* CHUBB, Ibis, 1910, p. 606—Sapucay, Paraguay.



*Casiornis rufus rufus* DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 322, 1912—San Rafael, Paraguay.

*Casiornis rufa* SNETHLAGE, Journ. Ornith., 61, p. 526, 1913—Monte Alegre; idem, Bol. Mus. Goeldi, 8, p. 354, 1914—Monte Alegre, lower Amazon; WETMORE, Bull. U.S. Nat. Mus., 133, p. 294, 1926—Las Palmas, Chaco, and west of Puerto Pinasco and eastern bank of Río Paraguay, Paraguay; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 344, 1929—Barra do Corda, Maranhão.

Range: Northern Argentina (Chaco, Salta, and Jujuy); Paraguay; eastern Bolivia, and the interior of the Brazilian table-land, from northern São Paulo and Matto Grosso through western Minas Geraes and Goyaz north to Maranhão (Barra do Corda) and Lower Amazonia (Monte Alegre).<sup>1</sup>

19: Argentina, prov. Jujuy (Río Lavallen 1, Ledesma 1); Bolivia (Buenavista, dept. Santa Cruz 4); Brazil (Baurú, São Paulo 3; Chapada 2, Urucúm de Corumbá 2, Piraputanga, Matto Grosso 3; Barra do Corda, Maranhão 3).

**\**Casiornis fusca* Sclater and Salvin. DUSKY CASIORNIS.**

*Casiornis fusca* SCLATER and SALVIN, Nomencl. Av. Neotrop., pp. 57, 159, 1873—Bahia (type in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 366, 1888—Bahia; IHERING and IHERING, Cat. Faun. Braz., 1, p. 312, 1907—Bahia; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará, Santo Antonio do Prata; idem, Bol. Mus. Goeldi, 8, p. 354, 1914—Pará, Santo Antonio do Prata, Rio Tocantins (Arumatheua), Rio Xingú (Victoria), and Rio Tapajóz (Boim); REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, pp. 70, 154, 1910, 1925—Pão de Canôa and Santa Rita, Rio Preto, Bahia, and Lagôa Missão, near Parnaguá, and above Pintados, Rio Parnahyba, Piauh; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 44, 64, 1926—Ceará and Maranhão (Anil, São Bento); STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Rio Muraiteua, Pará; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 344, 1929—Maranhão, Piauh, and Ceará.

*Casiornis rufa fusca* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 91, 1912—Pará, Santo Antonio do Prata, state of Pará.

Range: Northeastern Brazil, in states of Bahia, Ceará, Piauh, Maranhão, and Pará, extending along the south bank of the Amazon as far west as the Tapajóz (Boim).<sup>2</sup>

<sup>1</sup>Birds from Jujuy and Bolivia are generally somewhat paler on the belly, but the difference is trifling and not quite constant. No material is available from the type locality. Forty-five specimens examined.

<sup>2</sup>Although representing its ally in the greater part of its range, *C. fusca* cannot well be treated as a subspecies of *C. rufa*, since both are known to occur on

13: Brazil (Juá, near Iguatú, Ceará 8; Ibiapaba, Piauí 3; Fazenda Inhuma, Alto Parnahyba, Maranhão 1; São Bento, Maranhão 1.

### Genus LANIOCERA Lesson.<sup>1</sup>

*Laniocera* LESSON, Rev. Zool., 3, p. 353, 1840—type by monotypy *Laniocera sanguinaria* LESSON = *Ampelis hypopyrrha* VIEILLOT.

*Aulea* (SCHIFF MS.) BONAPARTE, Ateneo Italiano, 2, No. 11, p. 314 (=Consp. Voluc. Anisod., p. 4), 1854—type by subs. desig. (GRAY, Cat Gen. Subgen. Birds, p. 56, 1855) *Ampelis hypopyrrha* VIEILLOT.

*Aulia* CABANIS and HEINE, Mus. Hein., 2, p. 101, 1859—emendation of *Aulea* BONAPARTE.

### \**Laniocera hypopyrrha* (Vieillot). CINEREOUS MOURNER.

*Ampelis hypopyrra* (sic) VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 164, 1817—"la Guyane" = Cayenne.

*Ampelis hypopyrrha* VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 762, 1822—Cayenne.

*Muscicapa sibilatrix* WIED, Beitr. Naturg. Bras., 3, (2), p. 810, 1831—forest road of Capitão Filisberto, near Ilhéos, southern Bahia.

*Laniocera sanguinaria* LESSON, Rev. Zool., 3, p. 353, 1840—hab. ign. (descr. juv.).

*Lipangus hypopyrrhus* HARTLAUB, Rev. Zool., 9, p. 3, 1846 (descr. juv.); idem, l.c., p. 111, 1846 (crit.).

*Ptilochloris hypopyrrhus* LAFRESNAYE, Rev. Zool., 9, pp. 43, 239, 1846 (crit.).

*Lipangus lateralis* GRAY and MITCHELL, Genera Birds, 1, pl. 60, 1847.

*Lipangus sibilatrix* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 422, 1856—Brazil (ex WIED).

*Aulia hypopyrrha* CABANIS and HEINE, Mus. Hein., 2, p. 101, 1859—Bogotá; PELZELN, Orn. Bras., 2, p. 123, 1868—Bahia; SALVIN, Ibis, 1885, p. 303—Bartica Grove and Camacusa, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 354, 1888—Bahia, Bartica Grove, Camacusa, Chyavetas and Santa Cruz (Peru), Sarayacu (Ecuador); ALLEN, Bull. Amer. Mus. N.H., 2, p. 239, 1889—note on Wied's types in American Museum of Natural History, New York; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará; PENARD and PENARD, Vog. Guyana, 2, p. 158, 1910—interior of Surinam.

the lower Amazon, while recently the latter species was discovered even at Barra do Corda, in the heart of the area occupied by *C. fusca* in the state of Maranhão.

Material examined.—Bahia (including the type) 3; Rio Preto, Bahia 4; Juá, Ceará 8; Ibiapaba, Piauí 3; São Luiz 1, Miritiba 3, Fazenda Inhuma 1, São Bento, Maranhão 1; Benevides, Pará 1; Santarém, Rio Tapajóz 3.

<sup>1</sup>In spite of its exaspidean tarsus and the extensive cohesion of the toes I cannot but feel that the affinities of this genus are with *Lipangus* and *Rhytipterna*, and not with the Pipridae.

*Lipaugus hypopyrrhus* SCLATER, P.Z.S.Lond., 1861, p. 211—Brazil, Amazonia, Nova Grenada; SCLATER and SALVIN, Exot. Orn., p. 6, 1866—south-eastern Brazil.

*Lipaugus lateralis* SCLATER and SALVIN, Exot. Orn., p. 6, 1866—Brazil sept. et Valle Amazonum; idem, P.Z.S.Lond., 1867, pp. 751, 757—Chyavetas, Peru; idem, l.c., 1873, p. 285—Chyavetas and Santa Cruz, Peru.

*Aulia lateralis* PELZELN, Orn. Bras., 2, p. 124, 1868—Marabitanas, Rio Negro; TACZANOWSKI, Orn. Pér., 2, p. 369, 1884—Chyavetas, Santa Cruz.

*Laniocera hypopyrrha* BERLEPSCH and HARTERT, Nov. Zool., 9, p. 57, 1902—Nericagua, Orinoco River, and Suapure, La Pricion, La Unión, and Nicare, Caura River, Venezuela; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá; idem, Cat. Faun. Braz., 1, p. 309, 1907—Rio Juruá (range); BERLEPSCH, Nov. Zool., 15, p. 141, 1908—Ipousin, R. Approuague, and Cayenne, French Guiana; SNETHLAGE, Journ. Orn., 56, p. 505, 1908—Itaituba, Rio Tapajóz; p. 529, 1908—Arumatheua, Rio Tocantins; idem, Bol. Mus. Goeldi, 8, p. 351, 1914—Pará, Apehú, Santo Antonio do Prata, Rio Tocantins (Arumatheua), Tamucury, Rio Tapajóz (Itaituba), Rio Jary (Santo Antonio da Cachoeira), Obidos; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 250, 1916—Nericagua, Orinoco, and Caura Valley, Venezuela; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 73, 1918—vicinity of Paramaribo, Lelydorp, and Javaweg, Surinam; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia; CHUBB, Birds Brit. Guiana, 2, p. 281, 1921—numerous localities; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 545, 1926—Sarayacu, Ecuador.

*Laniocera hypopyrra* HELLMAYR, Nov. Zool., 13, p. 364, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 364, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 314, 1910—Calama, Rio Madeira; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 34, 90, 1912—Peixe-Boi, Pará (Pará localities); STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Pará.

Range: French, Dutch, and British Guiana; southern Venezuela (Orinoco-Caura basin), and all over Amazonia, from Pará west to the eastern slopes of the Andes in Colombia ("Bogotá"), Ecuador (Sarayacu), and Peru (Chyavetas; Santa Cruz, Río Hualaga; Puerto Bermúdez, Ucayali drainage basin), and south to the Rio Madeira and northern Bolivia (Río San Mateo, Yungas of Cochabamba); also in eastern Brazil (southern Bahia).<sup>1</sup>

1: Peru (Puerto Bermúdez, Río Pichis, dept. Junín 1).

<sup>1</sup>Specimens from Guiana and various parts of Amazonia agree well together. Birds from Bahia are slightly larger (wing 112-114, against 105-111 mm.) and apparently more tinged with olivaceous; but with only three old skins before me, I cannot be certain whether these rather trifling differences justify the recognition of a separate race, *L. hypopyrrha sibilatrix* (WIED).

Material examined.—French Guiana: Ipousin, Approuague River 1.—British Guiana: Bartica Grove 4, Camacusa 1, Caramang River 1.—Venezuela: Nericagua, Orinoco River 1; Caura Valley 20.—Colombia: "Bogotá" 3.—Brazil: Santo Antonio do Prata 1; Peixe-Boi, Pará 2; Borba, Rio Madeira 1; Calama, Rio Madeira 1; Marabitanas, Rio Negro 3; Bahia 3.—Peru: Puerto Bermúdez 1.—Bolivia: San Mateo 1.



**\**Laniocera rufescens rufescens* (Sclater). RUFESCENT MOURNER.**

*Lipaugus rufescens* SCLATER, P.Z.S.Lond., 25, "1857," p. 276, pub. Jan., 1858—Cobán, Guatemala<sup>1</sup> (type in Derby Museum, Liverpool); idem and SALVIN, Ibis, 1859, p. 124—Cobán; SCLATER, P.Z.S.Lond., 1861, p. 211—Guatemala; idem and SALVIN, l.c., 1864, p. 361—Panama Railroad; idem, Exot. Orn., pp. 5, 6, pl. 3, 1866—Veragua and Panama; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 330, 1862—Lion Hill, Panama; idem, l.c., 9, p. 116, 1868—Barranca and Tucurriquí, Costa Rica; SALVIN, Ibis, 1866, p. 203—occurrence in Guatemala questioned; idem, P.Z.S.Lond., 1867, p. 149—Santa Fé, Veragua.

*Aulia rufescens* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 519—Remedios, Antioquia (?); ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Pozo Azul de Pirris, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 355, 1888—Santa Fé, Chepo, Panama, and (?) Remedios, Colombia; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 130, 1891—Cobán, Honduras, Costa Rica, Panama, and (?) Colombia; UNDERWOOD, Ibis, 1896, p. 439—Volcán de Miravelles, Costa Rica.

*Laniocerca rufescens* RIDGWAY, Proc. U.S.Nat. Mus., 10, p. 589, 1888—Río Segovia, Honduras (crit.).

*Laniocera rufescens* RICHMOND, Proc. U.S.Nat. Mus., 16, p. 508, 1893—Río Escondido, Nicaragua (crit.); BANGS, Proc. New Engl. Zool. Cl., 2, p. 13, 1900—Loma del León, Panama; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 765, 1907—part, Guatemala to Panama and (?) Colombia (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 677, 1910—Cariblanco de Sarapiquí and La Vijagua, Costa Rica; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 215, 1922—Mount Sapo, Darién; GRISCOM, l.c., 69, p. 181, 1929—El Real, Darién.

Range: Guatemala (Cobán, Vera Paz) and southward through Honduras (Río Segovia), Nicaragua (Río Escondido; San Emilio, Lake Nicaragua), and Costa Rica to Panama (Santa Fé de Veragua; Panama Railroad; El Real and Mount Sapo, Darién), and possibly northern Colombia (Remedios, Antioquia).<sup>2</sup>

3: Nicaragua (San Emilio, Lake Nicaragua 2); Costa Rica Reventazón 1).

***Laniocera rufescens tertia* (Hartert).<sup>3</sup> ECUADORIAN RUFESCENT MOURNER.**

<sup>1</sup>Although the correctness of this locality given on the authority of Adolphe Delattre was subsequently questioned by Sclater and Salvin (Exot. Orn., p. 5), two more specimens from Guatemala have since come to hand.

<sup>2</sup>Owing to lack of material, I cannot say whether specimens from Colombia are really identical with those from Central America. According to the authors of the "Biologia" (l.c., p. 131), two birds from Remedios differ from the latter by having a grayish tinge on the head, lower back, and throat.

Material examined.—Honduras 1; Nicaragua 2; Costa Rica 7; Panama 1.

<sup>3</sup>*Laniocera rufescens tertia* (HARTERT): Adult male similar to *L. r. rufescens*, but general coloration decidedly darker, more tinged with chestnut, particularly above. Female unknown.

This rather ill-defined race needs corroboration by a larger series.

Material examined.—Ecuador: Bulón, prov. Esmeraldas 4.

*Aulia tertia* HARTERT, Nov. Zool., 9, p. 609, 1902—Bulón, Ecuador (type in Tring Museum examined).

*Laniocera rufescens* (not of SCLATER) RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 765, 1907—part, Ecuador.

*Laniocera rufescens tertia* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 545, 1926—Ecuador.

Range: Tropical Zone of northwestern Ecuador (Bulón, prov. Esmeraldas).

### Genus **RHYTIPTERNA** Reichenbach.

*Rhytipterna* Reichenbach, Av. Syst. Nat., pl. 65, 1850—type by subs. desig. (GRAY, Cat. Gen. and Subgen. Birds, p. 49, 1855) *Tyrannus calcaratus* SWAINSON = *Muscicapa simplex* LICHTENSTEIN.

#### \**Rhytipterna simplex simplex* (Lichtenstein). GRAYISH MOURNER.

*Muscicapa simplex* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 53, 1823—Bahia, Brazil.

*Muscicapa cinerascens* SPIX, Av. Bras., 2, p. 16, pl. 21, 1825—Rio de Janeiro; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 648, 1906 (type lost).

*Tyrannus calcaratus* SWAINSON, Quart. Journ. Sci., Litt., and Arts Roy. Inst., 20, No. 40, p. 271, Jan., 1826—Bahia; JARDINE and SELBY, Illustr. Orn., 1, pl. 37, April, 1828—no locality stated.

*Muscicapa rustica* WIED, Beitr. Naturg. Bras., 3, (2), p. 866, 1831—south-eastern Brazil.

*Lipangus simplex* HARTLAUB, Rev. Zool., 9, p. 3, 1846 (crit.).

*Myiarchus rusticus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 470, 1856—Rio de Janeiro, Espirito Santo, and Bahia.

*Lipangus simplex* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 422, 1856—part, Bahia; SCLATER, P.Z.S.Lond., 1861, p. 211—Brazil; idem and SALVIN, Exotic Orn., p. 6, 1866—Brazil; PELZELN, Orn. Bras., 2, p. 123, 1868—part, Rio de Janeiro; CABANIS, Journ. Orn., 22, p. 90, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 356, 1888—part, spec. k-s, Bahia, "São Paulo," Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 240, 1889—southeastern Brazil (note on Wied's types); IHERING, Rev. Mus. Paul., 3, p. 214, 1899—"São Paulo" (ex SCLATER); idem, l.c., 4, p. 156, 1900—Cantagallo; idem, Cat. Faun. Braz., 1, p. 309, 1907—Bahia and Porto Cachoeiro, Espirito Santo (range in part); LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia.

Range: Wooded coast region of southeastern Brazil, from Rio de Janeiro north to Bahia.<sup>1</sup>

1: Brazil (Santo Amaro, Bahia).

<sup>1</sup>Material examined.—Bahia (trade skins) 6; Santo Amaro, Bahia 1; Rio de Janeiro 2.

\**Rhytipterna simplex frederici* (Bangs and Penard).<sup>1</sup> AMAZONIAN GRAYISH MOURNER.

*Lipaugus simplex frederici* BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 71, 1918—vicinity of Paramaribo, Surinam; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 343, 1929—Tury-assú, Maranhão.

*Lipaugus simplex* (not of LICHTENSTEIN) CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 694, 1848—British Guiana; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 422, 1856—part, Pará; SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 190—lower Ucayali, Peru; PELZELN, Orn. Bras., 2, p. 123, 1868—part, Engenho do Gama and [Villa Bella de] Matto Grosso (Matto Grosso), Salto do Girão and Borba (Rio Madeira), Barra [= Manáos], Pará; SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 284—lower Ucayali, Peru; TACZANOWSKI, l.c., 1874, p. 540—Monterico, Peru; idem, l.c., 1882, p. 24—Huambo and Yurimaguas, Peru; idem, Orn. Pér., 2, p. 370, 1884—Peruvian localities; SALVIN, Ibis, 1885, p. 303—Bartica Grove, Camacusa, and Merumé Mts., British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 356, 1888—part, spec. a-j, Bogotá, Bartica Grove, Camacusa, Cayenne, Sarayacu (Ecuador), and lower Ucayali, Peru; BERLEPSCH and LEVERKÜHN, Ornith., 6, p. 19, 1890—Angostura, Orinoco, Venezuela; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Diamantina, near Santarém, Brazil; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—Río Santiago, Ecuador; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Mountains of the Upper Carsevenne and Camopi, French Guiana; BERLEPSCH, Nov. Zool., 15, p. 315, 1908—same localities; IHERING and IHERING, Cat. Faun. Braz., 1, p. 309, 1907—part, range excl. southeastern Brazil; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará; idem, l.c., 56, p. 505, 1908—Goyana, Rio Tapajóz; idem, Bol. Mus. Goeldi, 8, p. 351, 1914—Pará, Quati-purú, Rio Guamá (Santa Maria de São Miguel), Rio Tocantins (Cametá), Rio Tapajóz (Boim, Goyana, Villa Braga, Villa Nova), Rio Maecurú, Rio Jamundá (Faro); PENARD and PENARD, Vog. Guyana, 2, p. 159, 1910—Surinam; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—Florescia, eastern Colombia; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 64, 1926—Tury-assú, Maranhão.

*Lipaugus simplex simplex* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 545, 1926—eastern Ecuador.

*Lipaugus simplex immundus* (not of SCLATER and SALVIN) BERLEPSCH and HARTERT, Nov. Zool., 9, p. 57, 1902—Perico and Nericagua, Río Orinoco, and Suapure and La Pricion, Caura, Venezuela.

<sup>1</sup>*Rhytipterna simplex frederici* (BANGS and PENARD): Very similar to *R. s. simplex*, but upper parts decidedly darker, more purely slate gray; breast likewise darker; abdomen less tinged with yellowish; base of lower mandible hardly paler than the rest.

Although single specimens are not always distinguishable, this form is fairly separable in a series. Certain individuals from Pará and Maranhão form the transition to *R. s. simplex*.

Material examined.—British Guiana 4.—Venezuela: Caura Valley 8.—Colombia: Bogotá 3.—Brazil: Tury-assú, Maranhão 1; Pará district 4; Itaituba, Tapajóz 1; Teffé, Rio Solimões 1; Rio Madeira 5; Engenho do Gama, Matto Grosso 1.



*Lipaugus immundus* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 255, 1916—La Cascabel, San Feliz River, Orinoco, Venezuela.

*Lipangus simplex* HELLMAYR, Nov. Zool., 12, p. 295, 1905—Igarapé-assú, Pará; idem, l.c., 13, p. 364, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 13, 1907—Itaituba, Rio Tapajóz; idem, l.c., 14, p. 51, 1907—Teffé, Rio Solimões; idem, l.c., 14, p. 364, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 314, 1910—Calama, Jamarysinho, and Maroins, Rio Madeira; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará localities; CHUBB, Birds Brit. Guiana, 2, p. 283, 1921—numerous localities.

Range: The Guianan-Amazonian forest region, from French, Dutch, and British Guiana west through southern Venezuela (valley of the Orinoco and its tributaries) to the eastern base of the Andes in Colombia and Ecuador, and throughout Amazonia from northern Maranhão to eastern Peru and western Matto Grosso (Villa Bella and Engenho do Gama, Rio Guaporé).

2: Colombia (Bogotá 1); Brazil (Tury-assú, Alto de Alegria, Maranhão 1).

***Rhytipterna immunda* (Sclater and Salvin).<sup>1</sup> CAYENNE MOURNER.**

*Lipaugus immundus* SCLATER and SALVIN, Nomencl. Av. Neotrop., pp. 57, 159, 1873—"Oyapoc, Cayenne" (types in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 357, 1888—Oyapoc; BERLEPSCH, Nov. Zool., 15, p. 141, 1908—Oyapoc (ex SCLATER and SALVIN).

Range: Supposed to be French Guiana (Oyapock).

**\**Rhytipterna holerythra holerythra* (Sclater and Salvin). RUFOUS MOURNER.**

*Lipaugus holerythrus* SCLATER and SALVIN, P.Z.S.Lond., 28, p. 300, 1860—Choctum, Vera Paz, Guatemala; idem, Ibis, 1860, p. 400—Vera Paz,

<sup>1</sup>*Rhytipterna immunda* (Sclater and Salvin) is known only from the two original specimens in the British Museum. One is an adult bird, just completing its annual molt, with the fourth to the eight primaries and the central pair of rectrices in the process of growing, and a number of pinfeathers in the body plumage. In coloration it is strikingly similar to *Myiarchus phaeonotus*, though the pileum is not quite so dark, being hardly different from the color of the back, and the throat and chest are somewhat dingier grayish (less whitish gray), also less sharply contrasted with the pale yellow of the remaining under parts. The second specimen is an immature bird in fresh plumage, without traces of molting. It has the smaller upper wing coverts conspicuously edged all round with buffy white, while those of the greater series merely show external margins of rufescent buff; the rectrices (except the outermost pair), too, are exteriorly edged with light cinnamon rufous, of which traces may likewise be seen on some of the upper tail coverts.

Both specimens differ, however, from *Myiarchus phaeonotus* by somewhat higher (not so depressed), less ridged and more strongly hooked bill, the serrated upper portion of the planta tarsi, and proportionately longer tail. Wing 86; tail 82, 85; tars. 20; bill 17, 18.

Its habitat, supposed to be Oyapock, is perhaps open to doubt.

Guatemala; SCLATER, P.Z.S.Lond., 1861, p. 211—Guatemala; idem and SALVIN, l.c., 1864, p. 361—Panama Railroad; idem, l.c., 1867, p. 279—Bluefields River, Nicaragua; idem, Exotic Orn., p. 6, 1866—Guatemala and Isthmus of Panama; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 330, 1862—Panama Railroad; idem, l.c., 9, p. 116, 1868—Angostura, Costa Rica; SALVIN, P.Z.S.Lond., 1867, p. 149—Santa Fé de Veragua; idem, l.c., 1870, p. 199—Calovevora, Boqueti de Chitrá, Chitrá, and Volcán de Chiriquí; WYATT, Ibis, 1871, p. 334—one day's journey from Paturia, Magdalena Valley, Colombia; BOUCARD, P.Z.S.Lond., 1878, p. 65—San Carlos and Naranjo, Costa Rica; SCLATER and SALVIN, l.c., 1879, p. 519—Neché, Antioquia, Colombia; ZELEDÓN, Anal. Mus. Nac. Costa Rica, 1, p. 118, 1887—Talamanca, Las Trojas, Jiménez, and Naranjo de Cartago, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 357, 1888—"southern Mexico" to Remedios and Neche, northern Colombia; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 131, 1891—"Mexico" to Colombia; CHERRIE, Expl. Zool. en Costa Rica, 1890-91, p. 37, 1893—Boruca, Costa Rica; RICHMOND, Proc. U.S. Nat. Mus., 16, p. 508, 1893—Río Frío, Costa Rica and Río Escondido, Nicaragua; UNDERWOOD, Ibis, 1896, p. 439—Miravelles, Costa Rica; BANGS, Auk, 18, p. 365, 1901—Divala, Chiriquí; idem, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Yaruca, Honduras; DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Los Amates, Guatemala.

*Lipaugus holerythrus* BANGS, Proc. New Engl. Zool. Cl., 3, p. 40, 1902—Boquete and Volcán de Chiriquí, Panama.

*Lipaugus holerythrus holerythrus* RIDGWAY, Bull. U.S. Nat. Mus., 50, Part 4, p. 820, 1907—Guatemala to northern Colombia (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 669, 1910—Costa Rica; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—Alto Bonito, lower Atrato, and Puerto Valdivia, lower Cauca, Colombia; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 213, 1922—Mount Sapo, Darién; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 458, 1928—Boquete Trail, Panama; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—El Tigre, Río Cupe, Darién.

Range: Guatemala and southwards through Honduras, Nicaragua, Costa Rica, and Panama to northern Colombia (lower Atrato; Puerto Valdivia, lower Cauca; Nechí, Remedios, and near Paturia, lower Magdalena region).<sup>1</sup>

6: Guatemala (Los Amates 1, unspecified 1); Costa Rica (Orosi 2, Boruca 1, Limón 1).

### ***Rhytipterna holerythra rosenbergi* (Hartert).<sup>2</sup> ROSENBERG'S MOURNER.**

<sup>1</sup>Birds from northern Colombia (Río Nechí) and Darién diverge slightly in the direction of *R. h. rosenbergi*.

Material examined.—Guatemala 3; Chamelecón, Honduras 1; Costa Rica 10; Panama 2; Río Nechí, Colombia 2.

<sup>2</sup>*Rhytipterna holerythra rosenbergi* (HARTERT): Similar to *R. h. holerythra*, but much more deeply colored throughout, approaching cinnamon russet above and cinnamon chestnut underneath. Wing 97-104; tail 86-94; bill 19-20.

Material examined.—Colombia: Nóvita 2; Sipí 1; Juntas, Río Dagua 7.—Ecuador: Cachaví, prov. Esmeraldas 2.

*Lipaugus holerythrus rosenbergi* HARTERT, Bull. Brit. Orn. Cl., 16, p. 12, 1905—Río Dagua, western Colombia (type in Tring Museum examined); HELLMAYR, P.Z.S.Lond., 1911, p. 1145—Nóvita and Sipi, Chocó, Pacific Colombia (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 495, 1917—Los Cisneros, Río Dagua, Colombia; idem, l.c., 55, p. 546, 1926—western Ecuador.

*Lipaugus holerythrus* (not of SCLATER and SALVIN) HARTERT, Nov. Zool., 5, p. 489, 1898—Cachabí, Ecuador.

Range: Pacific coast of Colombia, from the Río San Juan southwards, and northwestern Ecuador (prov. Esmeraldas).

### Genus LIPAUGUS Boie.

*Lipangus* (typogr. error)<sup>1</sup> BOIE, Isis, 21, p. 318, 1828—type by subs. desig. (GRAY, List Gen. Birds, p. 29, 1840) *Muscicapa plumbea* LICHTENSTEIN.

*Lathria* SWAINSON, Classif. Birds, 2, p. 255, 1837—type by monotypy "*Le Cotinga cendré*" LEVAILLANT = *Ampelis cinerea* VIEILLOT.

*Turdampelis* LESSON, Écho du Monde Savant, 11, 2nd sem., No. 7, p. 156, 1844—type by monotypy *Turdampelis lanioides* LESSON.

### \**Lipaugus fusco-cinereus* (*Lafresnaye*). DUSKY PIHA.

*Querula fusco-cinerea* LAFRESNAYE, Rev. Zool., 6, p. 291, 1843—"Colombie" = Bogotá.

*Lipangus fuscocinereus* HARTLAUB, Rev. Zool., 9, p. 43, 1846 ((crit.).

*Lipaugus fusco-cinereus* SCLATER, P.Z.S.Lond., 23, p. 153, 1855—Bogotá; idem, l.c., 26, p. 71, 1858—"Río Napo," Ecuador; idem, l.c., 1861, p. 210—"Nova Granada"; SCLATER and SALVIN, Exot. Orn., p. 6, 1866—"Nova Grenada."

*Lathria fusco-cinerea* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 518—Alegria, Antioquia, Colombia; BERLEPSCH, Journ. Orn., 32, p. 306, 1884—Bucaramanga; SCLATER, Cat. B. Brit. Mus., 14, p. 350, 1888—Bogotá and Alegria, Colombia, and "Baisa" [= Baeza], Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—Pun, eastern Ecuador; GOODFELLOW, Ibis, 1901, p. 711—Baeza, Ecuador; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 75, 1922—Baeza road to Napo, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 543, 1926—above Loja, above Baeza, and upper Sumaco, Ecuador; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Huila, Ecuador.

*Lathria fuscocinerea fuscocinerea* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 494, 1917—Paramillo Trail, above Salento, Laguneta, El Roble, and Subia, Colombia.

*Lathria fusco-cinerea guayaquilensis* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 120, 1906—"Guayaquil, western Ecuador" (errore).

<sup>1</sup>In a footnote the derivation is given as "*Αιπυγος splendore deficiens*."



Range: Humid Temperate Zone of eastern Ecuador and of all three Andean ranges of Colombia.<sup>1</sup>

4: Colombia (Bogotá 2; Páramo de Tamá, Santander 2).

**\*Lipaugus cineraceus (Vieillot). GRAY SCREAMING PIHA.**

*Ampelis cinerea* (not of LATHAM, 1790) VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 162, 1817—based on "Le Cotinga cendré" LEVAILLANT, Hist. Nat. Ois. Nouv. et Rares Amér. et Indes, 1, p. 98, pl. 44, 1801, Cayenne.

*Ampelis cineracea* VIEILLOT, Tabl. Enc. Meth., Orn., 2, livr. 91, p. 761, 1822—based on "Le Cotinga cendré" LEVAILLANT, l.c., p. 98, pl. 44, 1801, Cayenne.

*Muscicapa vociferans* WIED, Reise Bras., 1, p. 242 (8vo ed., p. 240), 1820—Fazenda Pindoba, north of Caravellas, Bahia; idem, l.c., 2, p. 118, 1821—lower Ilhéos, Bahia.

*Muscicapa plumbea* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 53, 1823—Bahia, Brazil; WIED, Beitr. Naturg. Bras., 3, (2), p. 806, 1831—Mucuri, Alcobaca, road of Cap. Filisberto, Bahia.

*Querula cinerea* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 39, 1837—Moxos, Bolivia.

*Querula cineracea* D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 296, 1839—Mission de Magdalena, Moxos, Bolivia.

*Lathria cinerea* SWAINSON, Natur. Libr., Orn., 10, (Flycatchers), p. 78, pl. 2, 1838—"southern Brazil"; SALVIN, Cat. Strickland Coll., p. 325, 1882—Pará; idem, Ibis, 1885, p. 302—Bartica Grove, Camacusa, Merumé Mts., and Roraima, Brit. Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 352, 1888—Bartica Grove, Camacusa, Merumé Mts., Roraima, Cayenne, Maroni River, Pará, Peruvian Amazon, Sarayacu (Ecuador); RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; GOODFELLOW, Ibis, 1901, p. 711—Suyano, Río Napo, and near mouth of Coca River, Ecuador; SCHULZ, Journ. Orn., 50, p. 361, 1902 (habits); BERLEPSCH and HARTERT, Nov. Zool., 9, p. 57, 1902—Munduapo and Nericagua, Orinoco River, and Suapure, La Unión, and La Pricion, Caura, Venezuela; GOELDI, Ibis, 1903, p. 499—Rio Capim; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Lunier River and Camopi, French Guiana; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá; idem, Cat. Faun. Braz., 1, p. 309, 1907—Rio Juruá; HELLMAYR, Nov. Zool., 12, p. 295, 1905—Igarapé-assú, Pará; idem, l.c., 13, p. 364, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 363, 1907—Humaythá, Rio Madeira; idem, l.c., 17, p. 314, 1910—Calama and Allianca, Rio Madeira; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará, Rio Capim, Santo Antonio do Prata, and Castanhal, Pará; idem, l.c., 56, p. 13, 1908—Bom Lugar and Monte

<sup>1</sup>Specimens from eastern Ecuador are indistinguishable from Colombian skins. Material examined.—Colombia: Bogotá 9; Páramo de Tamá 2.—Ecuador: Pun 1; Baeza 1; near Baños 3.

- Verde, Rio Purús; idem, l.c., 56, p. 505, 1908—Bella Vista, Rio Tapajóz; BERLEPSCH, Nov. Zool., 15, p. 141, 318, 1908—Ipousin and Regina, Approuague River, Lunier River, and Camopi, French Guiana; PENARD and PENARD, Vog. Guyana, 2, p. 157, 1910—Surinam; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 33, 90, 1912—Peixe-Boi (Pará localities); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 351, 1914—numerous localities in the Pará district, Rio Tocantins (Mazagão), Rio Xingú (Victoria), Rio Tapajóz (Bella Vista, Villa Braga), Rio Jamauchim (Santa Helena), Rio Purús (Bom Lugar, Monte Verde), Obidos, Rio Jamundá (Faro), Maranhão; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 254, 1916—Munduapó, Nericagua, Orinoco River (habits, call-note); BEEBE, Zoologica (N.Y.), 2, p. 74, 1916—Utinga, Pará; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 494, 1917—Flores, eastern Colombia; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia; CHUBB, Birds Brit. Guiana, 2, p. 278, 1921—various localities; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 64, 1926—Tury-assú, Maranhão; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Rio Inhangapy and Castanhal, Pará.
- Turdampelis cinereus* LESSON, Écho du Monde Savant, 11, 2nd sem., No. 7, p. 156, 1844—"Guyane;" idem, Oeuvr. Buffon, éd. Lévêque, 20, [=Descr. Mammif. et Ois], p. 325, 1847—"Guyane."
- Lipaugus plumbeus* HARTLAUB, Rev. Zool., 9, p. 3, 1846 (crit.).
- Lipaugus cineraceus* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 693, 1848—British Guiana; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 421, 1856—Brazil; SCLATER, P.Z.S.Lond., 1861, p. 210—Cayenne, Guiana, and Amazon Valley; SCLATER and SALVIN, Exot. Orn., p. 6, 1866—same range; idem, P.Z.S.Lond., 1867, p. 579—Pará; idem, l.c., 1873, p. 284—Chamicuro, Peru.
- Lipaugus plumbeus* PELZELN, Orn. Bras., 2, p. 122, 1868—Dourado and Engenho do Gama (Matto Grosso), Borba (Rio Madeira), Barra do Rio Negro [=Manáos].
- Lathria plumbea* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 618—Guanai, Yungas, and Mission de Magdalena, Moxos, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 351, 1888—Bahia and Guanai, Bolivia; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—Mapiri, Bolivia.
- Lathria cineracea* TACZANOWSKI, Orn. Pér., 2, p. 368, 1884—Chamicuro, Peru, and Cayenne; GOELDI, 1897, p. 155—Counany, northern Pará; HELLMAYR, Nov. Zool., 32, p. 12, 1925—Bolivia.
- Lathria vociferans* ALLEN, Bull. Amer. Mus. N.H., 2, p. 239, 1889—note on Wied's types.
- Lathria cinerea cinerea* BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 71, 1918—vicinity of Paramaribo, Lelydorp, Javaweg, and Rijsdijkweg, Surinam (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 544, 1926—Rio Suno, eastern Ecuador.
- Lathria cineracea cineracea* HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 342, 1929—Tury-assú, Maranhão.

Range: French, Dutch, and British Guiana, and westward through southern Venezuela (the Orinoco Valley and its tributaries) to eastern Colombia, and south through the whole of Amazonia to northern Bolivia and western Matto Grosso, and from Pará along the wooded coast belt of eastern Brazil to southern Bahia.<sup>1</sup>

17: Dutch Guiana (near Paramaribo 2); British Guiana (Mazaruni River 2); Brazil (Serra Grande, Rio Branco 7; Conceição, Rio Branco 1; Utinga, Pará 1; Tury-assú, Maranhão 1); Peru (Moyobamba 1; Rioja 1; Puerto Bermúdez, Río Pichis, dept. Junín 1).

**\**Lipaugus lanioides* (Lesson).<sup>2</sup> CINNAMON-VENTED PIHA.**

*Turdampelis lanioides* LESSON, Écho du Monde Savant, 11, 2nd sem., No. 7, p. 156, July, 1844—"Brésil"; idem, Oeuvr. Buffon, éd. Lévêque, 20, [=Descr. Mammif. et Ois.], p. 324, 1847—"Brésil."

*Turdampelis rufococcix* LESSON, Écho du Monde Savant, 11, 2nd sem., No. 7, p. 156, in text, 1844.

*Turdampelis rufococcyx* LESSON, Oeuvr. Buffon, éd. Lévêque, 20, [=Descr. Mammif. et Ois.], p. 325, in text, 1847.

*Lipaugus virussu* PELZELN, Orn. Bras., 2, pp. 122, 184, Sept., 1868—Matodentro and Ypanemá, São Paulo (types in Vienna Museum examined).

*Lipaugus lanioides* HARTLAUB, Rev. Zool., 9, p. 3, 1846 (crit.).

<sup>1</sup>I do not see my way clear to separate the southern race, *Lipaugus cineraceus vociferans*, lately revived by BANGS and PENARD (Bull. Mus. Comp. Zool., 62, p. 71, 1918). The wings of five (unsexed) skins from Bahia measure 119-125, of ten adult males from French and British Guiana 116-128; the variation in size is, therefore, about the same in the two series. Two of the Bahia skins are slightly washed with brownish on the apical portion of the rectrices and inner secondaries, which may indicate an approach to the large *L. lanioides*, of southern Brazil; but the remaining specimens are not distinguishable in coloration from the Guianan average. Bahia birds have possibly somewhat longer tails (111-117, against 109-113), though this insignificant difference is likely to disappear in a larger series.

While Peruvian specimens are not markedly different from those of Guiana and Venezuela, eight skins from San Mateo, Yungas of Cochabamba, Bolivia, may be separable subspecifically on account of their larger size (wing 128-133½; tail 116-122, once only 112) and slightly more olivaceous coloring. A single example from Sarayacu, Ecuador, however, is similar.

Material examined.—French Guiana 6.—British Guiana 6.—Dutch Guiana 3.—Venezuela: Caura Valley 15.—Colombia: "Bogotá" 3.—Ecuador: Sarayacu 1.—Brazil: Tury-assú, Maranhão 1; Pará district 10; Rio Madeira 3; Rio Branco 8; Engenho do Gama, Matto Grosso 1; Bahia 5.—Peru (as specified above) 3.—Bolivia: San Mateo, Yungas of Cochabamba 8.

<sup>2</sup>*Lipaugus lanioides* (Lesson) is most probably conspecific with *L. cineraceus*, but its range and variation are too little known to admit of a final conclusion. It differs from its ally principally in its larger size (wing 132-140; tail 115-122), decidedly brownish rump, tail, and wing edgings, and (buffy) brownish gray under parts, passing into cinnamonaceous on the lower tail coverts.

Material examined.—Espírito Santo: Braço do Sul 1.—São Paulo: Victoria 2, Matodentro 1, Ipanemá 4.—Santa Catharina: Blumenau 1, Joinville 1.



*Lipaugus plumbeus* (not *Muscicapa plumbea*, LICHTENSTEIN) SCLATER, P.Z.S. Lond., 1861, p. 210—Brazil (diag.; excl. synonymy); SCLATER and SALVIN, Exot. Orn., p. 6, 1866—Brazil.

*Lathria virussu* CABANIS, Journ. Orn., 22, p. 90, 1874—Cantagallo, Rio; SCLATER, Cat. B. Brit. Mus., 14, p. 351, 1888—Mattodentro and "Pelotas, Rio Grande do Sul," Brazil; IHERING, Rev. Mus. Paul., 3, p. 213, 1899—Cantagallo; idem, Cat. Faun. Braz., 1, p. 308, 1907—Iguapé, São Paulo and Marianna, Minas Geraes.

*Lathria lanioides* HELLMAYR, Verh. Orn. Ges. Bay., 12, p. 138, 1915—Braço do Sul, near Victoria, Espírito Santo (crit.).

Range: Wooded region of southeastern Brazil, from Espírito Santo and southern Minas Geraes (Marianna) south to Santa Catharina.

2: Brazil (Victoria, São Paulo 1; Joinville, Santa Catharina 1).

***Lipaugus streptophorus* (Salvin and Godman).<sup>1</sup> PINK-COLLARED PIHA.**

*Lathria streptophora* SALVIN and GODMAN, Ibis, (5), 2, p. 448, pl. 14, 1884—Roraima, British Guiana (descr. of male); SALVIN, l.c., 1885, p. 303—Roraima; idem, l.c., 1886, pp. 500, 502—Mount Tweekquay, Brit. Guiana (descr. of female); SCLATER, Cat. B. Brit. Mus., 14, p. 352, 1888—Roraima and Tweek-quey Mts.; CHUBB, Birds Brit. Guiana, 2, p. 280, 1921—same localities.

Range: Mountains of British Guiana (Roraima, Tweek-quey).

***Lipaugus subalaris* Sclater. GRAY-RUMPED PIHA.**

*Lipaugus subalaris* SCLATER, P.Z.S.Lond., 1861, p. 210—Río Napo, Ecuador (type in British Museum examined); SCLATER and SALVIN, Exot. Orn., p. 36, pl. 2, 1866—Río Napo.

*Lathria subalaris* SCLATER, Cat. B. Brit. Mus., 14, p. 353, 1888—Río Napo and Sarayacu (Ecuador), "Upper Amazons"; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 15, 1899—San José, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 544, 1926—Río Suno and below San José, Ecuador.

Range: Tropical Zone of eastern Ecuador (Río Napo, Sarayacu, San José, Río Suno).<sup>2</sup>

**\**Lipaugus cryptolophus cryptolophus* (Sclater and Salvin). OLIVACEOUS PIHA.**

*Lathria cryptolopha* SCLATER and SALVIN, P.Z.S.Lond., 1877, p. 522—"Mongi" = Monji, eastern Ecuador (type in British Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 354, 1888—Monji; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 494, 1917—Andalucía, summit of Eastern Andes, Colombia.

<sup>1</sup>An excellent species, in structure nearest to *L. cineraceus*. Five specimens from British Guiana examined.

<sup>2</sup>Material examined.—Ecuador: Río Napo 1, Sarayacu 2.

*Lathria cryptolopha cryptolopha* HELLMAYR and SEILERN, Verh. Orn. Ges. Bay., 12, p. 90, 1914—El Topo, Río Pastaza, Ecuador, and Cueva Seca and Piquitamba, Río Tocache, dept. San Martín, Peru (descr. of female); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 544, 1926—Zamora and Sabanilla, eastern Ecuador.

Range: Upper Tropical and Subtropical Zone of eastern Colombia (Andalucía, alt. 7000 ft., summit of Eastern Andes), eastern Ecuador (Monji; Zamora; Sabanilla; El Topo, Río Pastaza), and eastern Peru (Cueva Seca and Piquitamba, Río Tòcache, dept. San Martín; Chinchao, dept. Huánuco).<sup>1</sup>

1: Peru (Chinchao, dept. Huánuco 1).

***Lipaugus cryptolophus mindoensis* (Hellmayr and Seilern).<sup>2</sup>**  
WESTERN OLIVACEOUS PIHA.

*Lathria cryptolopha* (sic) *mindoensis* HELLMAYR and SEILERN, Verh. Orn. Ges. Bay., 12, p. 89, 1914—Mindó, western Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 545, 1926—Mindó.

Range: Western Ecuador (Mindó).

**\**Lipaugus unirufus unirufus* Sclater. RUFOUS PIHA.**

*Lipaugus unirufus* SCLATER, P.Z.S.Lond., 27, p. 385, 1859—state of Oaxaca, Mexico (type) and Cobán, Guatemala; idem and SALVIN, Ibis, 1860, p. 36—Cobán, Guatemala; SCLATER, P.Z.S.Lond., 1861, p. 211—Mexico and Guatemala; SCLATER and SALVIN, Exotic Orn., pp. 1, 6, pl. 1, 1866—part, Oaxaca and Guatemala; SUMICHRIST, Mem. Boston Soc. N.H., 1, p. 558, 1869—Vera Cruz, Mexico.

*Lathria unirufa* SCLATER, Cat. B. Brit. Mus., 14, p. 353, 1888—part, spec. a-g, Vera Cruz and Choctum, Guatemala, and British Honduras; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 129, 1891—part, Vera Cruz (Mexico), British Honduras, and Guatemala.

*Lathria unirufa unirufa* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 823, 1907—southeastern Mexico to Guatemala and British Honduras (monog.); BANGS and PETERS, Bull. Mus. Comp. Zool., 67, p. 478, 1927—Presidio, Vera Cruz.

<sup>1</sup>Material examined.—Ecuador: Monji (the type) 1; El Topo, Río Pastaza, alt. 2200 ft., ♀ ad., Oct. 21, 1910. M. G. Palmer (Coll. Seilern).—Peru, dept. San Martín: Cueva Seca, Río Tocache, alt. 1800 meters, ♂ ad., Aug., 1900. G. A. Baer; Piquitamba, Río Tocache, alt. 1100 meters, ♂ ad., Sept., 1900. G. A. Baer (Tring Museum); Chinchao, dept. Huánuco, alt. 5700 ft., ♀ ad., Nov. 19, 1922. J. T. Zimmer (Field Museum).—Wing 130-132; tail 105-113; bill 22.

<sup>2</sup>*Lipaugus cryptolophus mindoensis* (HELLMAYR and SEILERN): Adult male similar to *L. c. cryptolophus*, but smaller, and concealed base of black crest feathers extensively creamy white. Wing 125-126; tail 98-100; bill 22. Female unknown.

Material examined.—Western Ecuador: Mindó 2.

Range: Southeastern Mexico, in states of Vera Cruz and Tabasco, south to Guatemala and British Honduras.

1: Guatemala (unspecified 1).

**\**Lipaugus unirufus castaneotinctus* (Hartert).<sup>1</sup> SOUTHERN RUFOUS PIHA.**

*Lathria unirufus castaneotinctus* HARTERT, Nov. Zool., 9, p. 610, 1902—Río Durango, prov. Esmeraldas, Ecuador (type in Tring Museum examined).

*Lathria unirufa clara* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 120, 1906—Panama (Lion Hill Station?); idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 824, 1907—Nicaragua to northern Colombia (monog.); BANGS, Auk, 24, p. 303, 1907—Pozo del Río Grande, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 668, 1910—Costa Rica (habits); RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Siquirres, Costa Rica.

*Lathria unirufa castaneotincta* HELLMAYR, P.Z.S.Lond., 1911, p. 1144—Nóvita, Sipí, and Río Cajón, Pacific Colombia (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 494, 1917—Atrato River, Baudó, Noanamá, Nóvita, Barbacoas, and Puerto Valdivia, Colombia (crit.); BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 213, 1922—Mount Sapo, Darién (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 544, 1926—Ecuador (ex Hartert).

*Lipaugus unirufus* (not of SCLATER) CASSIN, Proc. Ac. Nat. Sci. Phila., 1860, p. 143—Turbo and Río Truando, Colombia; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 330, 1862—Panama Railway; SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 361—Panama Railway; idem, Exotic Orn., pp. 1, 6, 1866—part, Panama; SALVIN, P.Z.S.Lond., 1867, p. 149—Santa Fé, Veragua; SCLATER and SALVIN, l.c., 1867, p. 279—Bluefields River, Nicaragua; SALVIN, l.c., 1870, p. 199—Bugaba, Panama; idem, Ibis, 1872, p. 318—Chontales, Nicaragua.

*Lathria unirufa* SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 518—Remedios and Neche, Antioquia, Colombia; NUTTING, Proc. U.S.Nat. Mus., 6, p. 404, 1884—Los Sábalo, Nicaragua; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Pacuaré, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 353, 1888—part, spec. h-o, Chontales (Nicaragua), Bugaba (Chiriquí), Veragua, Chepo, Panama, Remedios and Neche (Colombia); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 129, 1891—part, Nicaragua, Panama, and Colombia; RICHMOND, Proc. U.S.Nat. Mus., 16, p. 508, 1893—Río Escondido, Nicaragua; CHERRIE, Expl. Zool. en Costa Rica, 1890-91, p. 37, 1893—Lagarto and Boruca, Costa Rica; idem, Anal. Inst. Fis.-Geogr. Nac. Costa Rica, 6, p. 72, 1893—Río Naranjo, Costa Rica;

<sup>1</sup>Comparison of a larger series leads me to consider the form of southern Central America (*L. u. clarus*) as inseparable, though specimens from Panama northwards average perhaps slightly paler or duller than those from western Colombia and Ecuador.

Material examined.—Costa Rica 11.—Panama 7.—Colombia: Nóvita 5, Río Cajón 3, Sipí, Río Sipí 1.—Ecuador, prov. Esmeraldas: Río Durango 1, Ventanas 1, Cachaví 2.



HARTERT, Nov. Zool., 5, p. 490, 1898—Cachaví, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Laguna Pita, Darién; BANGS, Auk, 18, p. 365, 1901—Divala, Chiriquí.

Range: Nicaragua; Costa Rica; Panama; Colombia (Pacific coast, extending east to the lower Cauca and Rio Nechí, Antioquia); northwestern Ecuador (Esmeraldas).

2: Costa Rica (Boruca 2).

### Genus **CHIROCYLLA** Sclater and Salvin.

*Chirocylla* SCLATER and SALVIN, P.Z.S.Lond., 1876, p. 357—type by orig. desig. *Lathria uropygialis* SCLATER and SALVIN.

*Chiroxilla* SHARPE, Hand-List Gen. and Spec. Birds, 3, p. 166, 1901—emendation.

*Chirocylla uropygialis* (Sclater and Salvin). CHESTNUT-RUMPED.PIHA.

*Lathria uropygialis* SCLATER and SALVIN, P.Z.S.Lond., 1876, p. 355, pl. 32—Tilotilo, Bolivia; idem, l.c., 1879, p. 617—Tilotilo.

*Chirocylla uropygialis* SCLATER, Cat. B. Brit. Mus., 14, p. 350, 1888—Tilotilo, Bolivia; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 907, 1907 (crit.).

Range: Subtropical Zone of Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

### Genus **PACHYRAMPHUS** Gray.

*Pachyramphus*<sup>2</sup> GRAY, List Gen. Birds, p. 31, 1840—type by orig. desig. *Psaris cuvierii* SWAINSON = *Tityra viridis* VIEILLOT.

*Pachyramphus* CABANIS, Arch. Naturg., 13, (1), p. 240, 1847—emendation of *Pachyramphus* GRAY.

*Bathmidurus* CABANIS, Arch. Naturg., 13, (1), p. 243, 1847—type by orig. desig. "*Lanius atricapillus* GMELIN," rectius *Todus marginatus* LICHTENSTEIN (see l.c., p. 245).

*Chloropsaris* KAUP, P.Z.S.Lond., 19, "1851," p. 45, Oct., 1852—type by subs. desig. (SCLATER, Cat. B. Brit. Mus., 14, p. 337, 1888) *Tityra viridis* VIEILLOT.

*Callopsaris*<sup>3</sup> SCLATER, P.Z.S.Lond., 25, p. 76, July, 1857—type by monotypy *Vireo versicolor* HARTLAUB.

*Zetes* CABANIS and HEINE, Mus. Hein., 2, p. 87, 1859—type by subs. desig. (SCLATER, Cat. B. Brit. Mus., 14, p. 337, 1888) *Pachyrhynchus niger* SPIX.

<sup>1</sup>Material examined.—Bolivia: Chaco (Yungas of La Paz) 3; Sandillani, alt. 2500 meters, 5; San Antonio 2; near Locotal, alt. 2500 meters, 1.

<sup>2</sup>*Pachyramphus* is the spelling used by G. R. Gray throughout his writings.

<sup>3</sup>*Callopsaris* BONAPARTE (Ann. Sci. Nat., (4), Zool., 1, p. 134, 1854) is a pure nomen nudum.

*Climacocercus* (not of CABANIS, 1845) BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 112, 1901—type by monotypy *Climacocercus cyanocephalus* BERTONI = *Pachyrhamphus polychopterus spixii* (SWAINSON).

*Berlepschia* (not of RIDGWAY, 1887) BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 114, 1901—type by monotypy *Berlepschia chrysoblephara* BERTONI = *Tityra viridis* VIEILLOT.

**\**Pachyrhamphus viridis viridis* (Vieillot). GREEN-BACKED BECARD.**

*Tityra viridis* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 3, p. 348, 1816—based on Azara, No. 210, Paraguay.

*Psaris cuvierii* SWAINSON, Zool. Illust., 1, pl. 32, April, 1821—Brazil.

*Platyrhynchus dupontii* VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 843, 1822—"l'île de la Trinité," errore (descr. of male).

*Muscicapa nigriceps* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 56, 1823—Bahia (descr. of male and female).

*Tityra vieilloti* JARDINE and SELBY, Illust. Orn., 1, pl. 10, fig. 1 (=female), Feb., 1827—Brazil.

*Tyrannus armiger* (Cuvier MS.) PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, livr. 3, p. 332, 1855—no locality given (descr. of female).

*Berlepschia chrysoblephara* BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 114, 1901—Puerto Bertoni, Paraguay.

*Pachyrhynchus cuvierii* SPIX, Av. Bras., 2, p. 33, pl. 45, fig. 2, 1825—Brazil; SWAINSON, Natur. Libr., Orn., 10, (Flycatchers), p. 85, pl. 4 (male), 1838 (descr. of male and female).

*Muscipeta nigriceps* WIED, Beitr. Naturg. Bras., 3, (2), p. 914, 1831—Cama-mú and Bahia.

*Pachyrhamphus cuvieri* CABANIS, Arch. Naturg., 13, (1), p. 242, 1847 (synonymy).

*Pachyrhamphus nigriceps* EULER, Journ. Orn., 15, p. 224, 1867—Cantagallo (nest and eggs descr.); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 454, 1856—Bahia.

*Pachyrhamphus viridis* SCLATER, P.Z.S.Lond., 25, p. 75, 1857—Bahia; PELZELN, Orn. Bras., 2, p. 120, 1868—Rio de Janeiro, Ypanemá (São Paulo), Curytiba (Paraná), Sangrador, Cuyabá, and Engenho do Gama, Matto Grosso (spec. examined); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 322—Lagôa Santa, Minas Geraes, and near Rio de Janeiro; BERLEPSCH, Journ. Orn., 21, p. 263, 1873—Blumenau, Santa Catharina; TACZANOWSKI, Orn. Pér., 2, p. 359, 1884—part, descr. of male, evidently based on a Brazilian example; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 140, 1885—Taquara, Rio Grande do Sul; BERLEPSCH, Journ. Orn., 35, p. 14, 1887—Lambaré, Paraguay (crit.); SCLATER, Cat. B. Brit. Mus., 14, p. 338, 1888—Pernambuco, Bahia, "Novo" Friburgo, São Paulo, Brazil; KERR, Ibis, 1892, p. 130—Fortin Page, lower Pilcomayo; ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Corumbá, Matto Grosso; IHERING, Anuario Est. Rio Grande do Sul, 16, p. 127, 1899—[Taquara do] Mundo

Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 212, 1899—Yporanga, São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 307, 1907—Yporanga and Bebedouro (São Paulo), Espírito Santo, and Bahia; OBERHOLSER, Proc. U.S.Nat. Mus., 25, p. 134, 1902—Sapucay, Paraguay (crit.); LILLO, Apunt. Hist. Nat., 1, p. 43, 1909—Santa Fé, Argentina; CHUBB, Ibis, 1910, p. 604—Sapucay, Paraguay; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 311, 1910—San Vicente and Ocampo, Chaco, and Río Pilcomayo; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 70, 1910—Santa Rita, Rio Preto, Bahia; GRANT, Ibis, 1911, p. 125—opposite Rabicho, Matto Grosso; DABBENE, Bol. Soc. Physis, 1, p. 348, 1914—Chaco Austral and Santa Ana, Misiones; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná; MÉNÉGAUX, Rev. Franç. d'Orn., No. 96, p. 57, 1917—Caceres, Matto Grosso; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 52, 1926—Marajó Island.

*Pachyrhynchus viridis cuvierii* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 669, 1906—Brazil (crit.); idem, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 340, 1929—Ibiapaba, Piauhý and Baturité and Juá, Ceará (crit.).

*Pachyrhamphus viridis viridis* HARTERT and VENTURI, Nov. Zool., 15, p. 205, 1909—San Vicente, Chaco (spec. examined); WETMORE, Bull. U.S. Nat. Mus., 133, p. 293, 1926—Las Palmas, Chaco; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 180, 1926—Therezina, Invernadinha, and Candido de Abreu, Paraná.

*Pachyrhynchus viridis* REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 153, 1925—Santa Rita, Rio Preto, Bahia (crit.).

Range: Eastern and southern Brazil, from Marajó, Piauhý, and Ceará south to Matto Grosso and Rio Grande do Sul; eastern Bolivia (Santa Cruz); northern Argentina (Tucumán, Chaco, Santa Fé, and Misiones); Paraguay.<sup>1</sup>

15: Argentina (Concepción, Tucumán 6; Eldorado, Misiones 2; Puerto Segundo, Misiones 2); Brazil (Ibiapaba, Piauhý 1; Juá, near Iguatú, Ceará 2; Santo Amaro, Bahia 2).

<sup>1</sup>Examination of more comprehensive material tends to show that size is too variable a character to be used for the discrimination of local races. It must be conceded, however, that the largest measurements are attained in Argentina and Paraguay, while Bahia birds average smaller than the rest.

Wing (adult males): San Vicente, Chaco 81; Lambaré, Paraguay 77; Concepción, Tucumán 80, 80; Misiones 73, 74; Santa Cruz, Bolivia 78; Curityba, Paraná 78½; São Paulo 75, 76; Matto Grosso (Cuyabá, Engenho do Gama, Sangrador) 71, 74, 76, 76; Rio de Janeiro 76; Bahia 70, 70, 70, 71, 75, 75; Santo Amaro, Bahia 72; Ceará 73, 74; Ibiapaba, Piauhý 78.

Material examined.—Argentina: San Vicente, Chaco 1; Ocampo, Santa Fé 1; Concepción, Tucumán 6; El Dorado and Puerto Segundo, Misiones 4.—Paraguay: Lambaré 1.—Bolivia: Santa Cruz 1.—Brazil: Paraná (Curityba; Roça Nova, Serra do Mar) 2; São Paulo (Iguapé, Victoria, Ipanemá) 4; Rio de Janeiro 2; Bahia 10; Santo Amaro, Bahia 2; Ceará (Juá, Baturité) 4; Ibiapaba, Piauhý 1; Matto Grosso (Cuyabá, Sangrador, Engenho do Gama) 5.



**\**Pachyrhamphus viridis xanthogenys* Salvadori and Festa.<sup>1</sup> YELLOW-CHEEKED BECARD.**

*Pachyrhamphus xanthogenys* SALVADORI and FESTA, Boll. Mus. Zool. Torino, 13, No. 330, p. 1, 1898—Río Zamora, Ecuador (type in Turin Museum examined; =adult male); idem, l.c., 14, No. 362, p. 16, 1899—Río Zamora; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 541, 1926—below San José, Ecuador (spec. examined).

*Pachyrhamphus peruanus* HARTERT and GOODSON, Nov. Zool., 24, p. 410, 1917—Chanchamayo, "state of Cuzco" [=dept. Junín,] Peru (type in Tring Museum examined; =adult female); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 541, 1926—Macas region, Ecuador (spec. examined).

*Pachyrhamphus viridis* (not *Tityra viridis* VIEILLOT) TACZANOWSKI, P.Z.S. Lond., 1874, p. 540—Amable María, Peru (one female); idem, Orn. Pér., 2, p. 359, 1884—part, descr. of female, Amable María.

Range: Tropical Zone of eastern Ecuador (Río Zamora; below San José; near Macas) and eastern Peru (Vista Alegre, dept. Huánuco; Amable María and Chanchamayo, dept. Junín).

2: Peru (Vista Alegre, dept. Huánuco 2).

***Pachyrhamphus viridis griseigularis* Salvin and Godman.<sup>2</sup> RORAIMA BECARD.**

<sup>1</sup>*Pachyrhamphus viridis xanthogenys* SALVADORI and FESTA: Similar to *P. v. viridis*, but adult male with orbital ring, cheeks, auriculars, and throat greenish yellow instead of white or grayish, this color being much duller and more greenish than the pectoral band in *P. v. viridis*; grayish nuchal collar absent or faintly suggested; black areas of larger upper wing coverts more extensive; female with a chestnut patch on the wings as in *P. v. viridis*, but pileum mainly grayish like the hind neck (instead of bright green like the back); throat grayish (not white or buffy white) like sides of head; pectoral band greenish instead of bright yellow; middle of abdomen more purely white, washed with grayish along sides and flanks. Wing (males) 71-74, (female) 71-73; tail 52-56, (female) 51-54; bill 12½-14.

On comparing two males each from Ecuador and Peru, I notice that those from the latter country have the primaries more conspicuously edged with greenish and the greenish yellow on the anterior under parts slightly brighter. The type of *P. peruanus*, an adult female secured by C. O. Schunke at Chanchamayo, alt. 1500 meters, in January, 1905, differs from an Ecuadorian specimen in the American Museum of Natural History, New York, by having pure white (instead of buffy) abdomen and by lacking the olivaceous tinge on the lateral and posterior portions of the pileum. These divergencies are evidently individual, since Taczanowski's description of a female from Amable María, as far as the head is concerned, agrees with the Ecuadorian bird.

Material examined.—Ecuador: Río Zamora (male) 1, below San José (male) 1, near Macas (female) 1.—Peru: Vista Alegre (males) 2; Chanchamayo (female, type of *P. peruanus*) 1.

<sup>2</sup>*Pachyrhamphus viridis griseigularis* SALVIN and GODMAN: Agreeing with *P. v. xanthogenys* in the extensive black areas of the upper wing coverts and the absence of the grayish nuchal collar in the male sex; but readily distinguishable in both sexes by having the throat and foreneck pale grayish, without any greenish or yellowish jugular band; sides of the head, in the male, about the same shade as in *xanthogenys*; female without trace of a gray nape band.

Material examined.—British Guiana: Roraima (including the type) 2.

*Pachyrhamphus griseigularis* SALVIN and GODMAN, Ibis, (5), 1, p. 208, 1883—Roraima, British Guiana (descr. of female); idem, l.c., 1884, p. 448—Roraima (descr. of male); SALVIN, l.c., 1885, p. 302, pl. 8—Roraima; SCLATER, Cat. B. Brit. Mus., 14, p. 339, 1888—Roraima; CHUBB, Birds Brit. Guiana, 2, p. 272, 1921—Roraima.

Range: Mount Roraima in British Guiana.

**\*Pachyrhamphus versicolor versicolor (Hartlaub). VARIEGATED BECARD.**

*Vireo versicolor* HARTLAUB, Rev. Zool., 6, p. 289, 1843—"Nouvelle Grenade"—Bogotá (descr. of female).

*Pachyrhynchus squamatus* LAFRESNAYE, Rev. Zool., 6, p. 291, 1843—"Colombie"—Bogotá (descr. of male).

*Pachyrhynchus versicolor* LAFRESNAYE, Rev. Zool., 7, p. 46, 1844 (crit.).

*Pachyrhamphus versicolor* CABANIS, Arch. Naturg., 13, (1), p. 243, 1847—"Neu Granada" (descr. of adult male); SCLATER, P.Z.S.Lond., 23, p. 150, 1855—Bogotá; idem, l.c., 25, p. 76, 1857—Bogotá (descr. of male and female); idem, l.c., 26, p. 71, 1858—Río Napo, Ecuador; idem, Cat. Coll. Amer. Birds, p. 243, 1862—Bogotá; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 518—Antioquia = Medellín; TACZANOWSKI, l.c., 1874, p. 540—Pumamarca, Peru; idem, l.c., 1879, p. 236—Tambillo, Peru; idem, l.c., 1882, p. 23—Tamiapampa, Peru; idem, Orn. Pér., 2, p. 366, 1884—Pumamarca, Sillapata, Tambillo, and Tamiapampa, Peru; BERLEPSCH and TACZANOWSKI, P.Z.S.Lond., 1884, p. 298—Cayandeled, Ecuador; idem, l.c., 1885, p. 93—Machay, Ecuador; SCLATER, Cat. B. Brit. Mus., 14, p. 339, 1888—Bogotá, Medellín, and Intac (Ecuador); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 125, 1890—part, Colombia and Ecuador; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 369—Vitoc, Huacras, Peru; SALVADORI and FESTA, Boll. Mus. Zool Torino, 14, No. 362, p. 16, 1899—Gualea, Ecuador; GOODFELLOW, Ibis, 1901, p. 710—Intac, Ecuador; BERLEPSCH and STOLZMANN, Ornith., 13, p. 90, 1906—Idma, above Santa Ana, Peru; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 843, 1907—part, Colombia, Ecuador, Peru, and Venezuela; MÉNÉGAUX, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B61, 1911—Anca (Nanegal), Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 490, 1917—San Antonio, Cerro Munchique, Miraflores, El Eden, Aguadita, El Roble, Colombia.

*Pachyrhamphus versicolor versicolor* CHAPMAN, Bull. U.S.Nat. Mus., 117, p. 100, 1921—San Miguel Bridge, Urubamba, Peru; idem, Bull. Amer. Mus. N.H., 55, p. 541, 1926—Baeza, below Oyacachi, lower Sumaco, Ecuador.

Range: Subtropical Zone of Colombia (all three ranges of the Andes) and extreme western Venezuela (Cordillera de Mérida), south through Ecuador and Peru to the Urubamba Valley, dept. Cuzco.<sup>1</sup>

<sup>1</sup>Specimens from Colombia and Ecuador appear to agree, while the few Peruvian skins seen by me are generally less barred underneath.

Material examined.—Colombia: Bogotá 12; Antioquia 2; Cerro Munchique 1.—Ecuador: Intac 6; Nanegal 1; unspecified 2.—Peru: Vitoc 1; Idma, Urubamba, Cuzco 1.—Venezuela: El Escorial, Mérida 1.

3: Colombia (Bogotá 2; Cerro Munchique, coast range west of Popayán, Cauca 1).

**\**Pachyrhamphus versicolor costaricensis* Bangs.<sup>1</sup> BARRED BECARD.**

*Pachyrhamphus versicolor costaricensis* BANGS, Proc. New Engl. Zool. Cl., 4, p. 26, 1908—Irazú, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 665, 1910—Volcán de Irazú and Río Luisa, Costa Rica; FERRY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 269, 1910—Coliblanco, Costa Rica.

*Pachyrhamphus versicolor* (not of HARTLAUB) BOUCARD, P.Z.S.Lond., 1878, p. 65—La Candelaria, Costa Rica; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 125, 1890—part, La Candelaria, Costa Rica; CHERRIE, Proc. U.S.Nat. Mus., 14, p. 535, 1891—La Palma de San José; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 843, 1907—part, Costa Rica.

Range: Subtropical Zone of Costa Rica (Volcán de Irazú; Río Luisa; La Palma de San José; Coliblanco; La Candelaria).

1: Costa Rica (Coliblanco 1).

***Pachyrhamphus surinamus* (Linnaeus). SURINAM BECARD.**

*Muscicapa surinama* LINNAEUS, Syst. Nat., 12th ed., 1, p. 325, 1766—Surinam (descr. of male).<sup>2</sup>

*Tityra surinama* STRICKLAND, Contrib. Ornith., 1848, p. 62-9, pl. 11 (=adult male)—South America, probably Surinam.

*Pachyrhamphus dimidiatus* FILIPPI, Mus. Mediolan., Animalia Vertebr., Cl. 2, (Aves), p. 31, 1847—locality uncertain (descr. of male).

*Bathmidurus melanoleucus* CABANIS, Arch. Naturg., 13, (1), p. 244, 1847—part, descr. of young male, "Brazil," errore, =Cayenne or Guiana (see Mus. Hein., 2, p. 88, 1859).

*Pachyrhamphus surinamus* SCLATER, P.Z.S.Lond., 25, p. 74, 1857—Surinam and Cayenne (descr. of male and female); PELZELN, Orn. Bras., 2, p. 120, note 4, 1868—Cayenne (descr. of immature male); SCLATER, Cat. B. Brit. Mus., 14, p. 340, 1888—Cayenne; BERLEPSCH, Nov. Zool., 15, p. 141, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 154, 1910—Surinam.

*Zeletes surinamus* CABANIS and HEINE, Mus. Hein., 2, p. 88, 1859—Cayenne or Guiana (synon. in part).

<sup>1</sup>*Pachyrhamphus versicolor costaricensis* BANGS: Very similar to *P. v. versicolor*, but male with sides of the head much brighter olive yellow, and wider as well as blacker bars underneath; female likewise much brighter olive yellow on under parts, cheeks, and auriculars.

Material examined.—Costa Rica: Irazú 1, Coliblanco 1.

<sup>2</sup>Linnaeus fails to mention the white patch at the base of the scapulars, a character easily overlooked in a mounted specimen.



Range: French and Dutch Guiana, and northern Brazil (Obidos).<sup>1</sup>

***Pachyrhamphus spodiurus* Sclater.<sup>2</sup> GRAY-TAILED BECARD.**

*Pachyrhamphus spodiurus* SCLATER, P.Z.S.Lond., 28, p. 279, 1860—Babahoyo, Ecuador (descr. of male and female); idem, l.c., p. 296, 1860—Esmeraldas, Ecuador; BERLEPSCH and TACZANOWSKI, l.c., 1883, p. 559—Chimbo, Ecuador; idem, l.c., 1885, p. 93—Yaguachi, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 362, 1884—Lechugal, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 341, pl. 25, 1888—Babahoyo, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 16, 1899—Vinces, Ecuador; GOODFELLOW, Ibis, 1901, p. 710—Santo Domingo, Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 542, 1926—Bucay, Daule, and Porto Velo, Ecuador.

Range: Tropical Zone of western Ecuador (north to Esmeraldas) and extreme northwestern Peru (Lechugal, prov. Tumbes).

**\**Pachyrhamphus rufus* (Boddaert). CINEREOUS BECARD.**

*Muscicapa rufa* BODDAERT, Tabl. Pl. Enl., p. 27, 1783—based on "Le Gobe-mouche roux, de Cayenne" DAUBENTON, Pl. Enl. 453, fig. 1, Cayenne (=female).<sup>3</sup>

<sup>1</sup>A single adult male from Obidos has the lateral rectrices more decidedly tipped with white than two from French Guiana. The female of this rare species, in pattern of coloration, recalls that of *Xenopsaris albinucha*, suggesting that the latter's affinities may be, after all, with the Cotingidae rather than with the Flycatchers.

Material examined.—French Guiana: Cayenne 2; Tamanoir, Mana River 2; Pied Saut, Oyapock 1.—Brazil: Obidos 1.

<sup>2</sup>*Pachyrhamphus spodiurus* SCLATER is most nearly related to *P. rufus* and may ultimately prove to be its Pacific representative. The male resembles it in the but faintly glossed pileum and in the pattern of the upper wing coverts, particularly in the narrow, irregular white fringes to the greater series, and the female agrees with that of its eastern ally in the ochraceous tawny upper parts and in having the primaries, along the outer web, narrowly edged with ochraceous tawny, abruptly defined from the blackish inner half of the vane. *P. spodiurus* differs, however, in larger size, longer, slenderer bill, and in the male sex by more elongated nuchal feathers, blackish upper back, dark gray (instead of whitish) under parts and lores, blackish auriculars, and in lacking the white frontal band and apical edges to the tail, while the female may be distinguished by its uniform ochraceous lower surface. Wing (male) 70-78, (female) 71-76; tail 55-59; (female) 55-56; bill 14-15.

Material examined.—Ecuador: Chimbo 2, Daule 1, Porto Velo 1.

<sup>3</sup>I do not know what to make of *Muscicapa eques* BODDAERT (Tabl. Pl. Enl., p. 51, 1783—based on "Le Gobe-mouche roux à poitrine orangée, de Cayenne" BUFFON, Hist. Nat. Ois., (Impr. Roy.), 5, p. 247, 1778, and DAUBENTON, Pl. Enl. 831, fig. 1—"un spécimen au Cabinet du Roi") and *Muscicapa aurantia* GMELIN (Syst. Nat., 1, (2), p. 932, 1789—based on the same references). Among the numerous females of *P. rufus* examined in the present connection, there is not one answering to Buffon's description: "la tête et le haut du cou sont d'un brun verdâtre; le dos est d'un roux surchargé de la même teinte de vert," nor do these terms fit any other Guianan species with which I am acquainted. The original specimen unfortunately is no longer in the Paris Museum.

- Pipra cinerea* BODDAERT, Tabl. Pl. Enl., p. 43, 1783—based on "Manakin cendré, de Cayenne" DAUBENTON, Pl. Enl. 687, fig. 1, Cayenne (=adult male).
- Muscicapa rufescens* GMELIN, Syst. Nat., 1, (2), p. 932, 1789—based on "Le Gobe-mouche roux, de Cayenne" DAUBENTON, Pl. Enl. 453, fig. 1, Cayenne (=female).
- Pipra atricapilla* GMELIN, Syst. Nat., 1, (2), p. 1003, 1789—based on "Manakin cendré, de Cayenne" DAUBENTON, Pl. Enl. 687, fig. 1, Cayenne (=adult male).
- Lanius mitratus* LICHTENSTEIN, Verz. Dubl. Berliner Mus., pp. 50, 51, 1823—Cayenne (descr. of adult male and female).
- Pachyrhynchus rufescens* SPIX, Av. Bras., 2, p. 34, pl. 46, fig. 2 (=female), 1825—Pará (type lost, formerly in Munich Museum).
- Pachyrhynchus leucogaster* SWAINSON, Anim. Menag., p. 289, Dec., 1837—Brazil (descr. of immature male).
- Pachyrhynchus simplex* LESSON, Écho du Monde Savant, 11, 2nd sem., No. 10, p. 231, 1844—Brazil (descr. of male); idem, Oeuvr. Buffon, (éd. Lévêque), 20, (=Descr. Mammif. et Ois.), p. 317, 1847—Brazil; HARTLAUB, Rev. Zool., 9, p. 2, 1846 (synon.).
- Psaris exilis* LESSON, Oeuvr. Buffon, (éd. Lévêque), 20, (=Descr. Mammif. et Ois.), p. 316, 1847—"l'Amérique méridionale" (=female).
- Psaris parinus* KAUP, P.Z.S.Lond., 19, "1851," p. 48, Oct., 1852—Pará (types in Liverpool Museum examined).
- Pachyrhamphus griseus* SCLATER, P.Z.S.Lond., 25, p. 18, 1857—based on DAUBENTON, Pl. Enl. 687, fig. 1; Bogotá, Santa Marta, "Trinidad," and Cayenne.
- Pachyrhamphus marcidus* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 389, 1909—Las Barrancas, Orinoco River, Venezuela (=juv.); idem, l.c., 2, p. 252, 1916—Las Barrancas.
- Pachyrhamphus atricapillus* CABANIS, Arch. Naturg., 13, (1), p. 242, 1847—Cayenne (synon.); idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 698, 1848—Cayenne and Surinam.
- Pachyrhamphus mitratus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 454, 1856—part, descr. of male, Guyana to the mouth of the Amazon.
- Pachyrhamphus cinereus* SCLATER, P.Z.S.Lond., 25, p. 75, 1857—Cayenne, Surinam, Venezuela, "Trinidad," Santa Marta, Bogotá (monog.); LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 330, 1862—Lion Hill, Panama; SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 361—Panama; idem, l.c., 1867, p. 579—Mexiana Island and Pará; PELZELN, Orn. Bras., 2, p. 121, 1868—Pará (spec. examined); ALLEN, Bull. Essex Inst., 8, p. 79, 1876—Santarem; TACZANOWSKI, Orn. Pér., 2, p. 360, 1884—part, descr. of Cayenne specimens; SCLATER, Cat. B. Brit. Mus., 14, p. 341, 1888—Lion Hill and Chepo, Panama, Santa Marta, Bogotá, "Trinidad," Cayenne, Paramaribo, Pará, Mexiana; SALVIN and GODMAN, Biol. Centr.-Amer., Aves,

2, p. 125, 1890—Lion Hill, Paraíso, Chepo, Panama; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; PHELPS, Auk, 14, p. 365, 1897—Guanaguana, Bermúdez, Venezuela; BANGS, Proc. New Engl. Zool. Cl., 2, p. 23, 1900—Loma del Leon, Panama; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 56, 1902—Caicara and Altagracia, Río Orinoco, Venezuela; GOELDI, Ibis, 1903, p. 499—Rio Capim, Brazil; SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Pará, Rio Capim, Rio Mojú, Monte Alegre (crit.); RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 838, 1907—part, Panama to Colombia, Venezuela, Cayenne, Surinam, and Lower Amazonia (excl. eastern Peru and "southern Brazil, Rio Juruá, São Paulo") (monog.); BERLEPSCH, Nov. Zool., 15, p. 140, 1908—Cayenne and R. Approuague, French Guiana; PENARD and PENARD, Vog. Guyana, 2, p. 153, 1910—Surinam (eggs descr.); SNETHLAGE, Journ. Orn., 61, p. 525, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 349, 1914—Pará, Rio Capim (Aproaga), Rio Mojú, Rio Tocantins (Arumatheua), Rio Xingú (Victoria), Cussary, Marajó (Chaves), Monte Alegre, and Rio Jamundá (Faro); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 252, 1916—Orinoco Region; STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 269, 1918—Gatún, Panama.

*Pachyrhynchus rufus* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 669, 1906 (crit., synonymy).

*Pachyrhamphus rufus* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará, Rio Mojú, Capim; p. 111, 1912—Fazenda Nazareth, Mexiana; STONE, Proc. Ac. Nat. Sci. Phila., 65, p. 205, 1913—Manimo River, Orinoco delta, Venezuela; BEEBE, Zoologica (N.Y.), 2, p. 93, 1916—Utinga, Pará; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 491, 1917—Río Lima, Colombia; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 70, 1918—vicinity of Paramaribo and Lelydorp, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 273, 1921—Supenaam River, Mazaruni River, Bonasica, Great Falls of Demerara, and Bartica Grove; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 328, 1922—Don Diego, Tucurínca, Fundación, and Loma Larga, Santa district (spec. examined); STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Castanhal, Pará.

Range: French, Dutch, and British Guiana; Venezuela (from the north coast in states of Sucre, Caracas, Carabobo, Lara, and Zulia south to the Orinoco and its tributaries); Colombia (Eastern Andes; Magdalena and Cauca Valleys; Santa Marta region); Panama; northern Brazil, in states of Pará and Amazonas, west to the Tapajós and the Rio Negro (Manacapurú).<sup>1</sup>

<sup>1</sup>No authentic record exists for its occurrence on the island of Trinidad. As far as I can see, birds from so widely separated regions as Colombia, French Guiana, and Lower Amazonia agree well together.

Material examined.—Colombia: Bogotá 6; El Cauca, Santander 2; Aguachica, dept. Magdalena 2; Loma Larga, dept. Magdalena 1; Fundación 6; Don Diego 1; Tucurínca 2; Yumbo, dept. Valle 2.—Venezuela: San Feliz, Orinoco River 1; Upata 2; El Callao, Río Yuruari 4; Macuto, Caracas 1; San Esteban, Carabobo 2; El Trompillo, Carabobo 2; Anzoátegui, Lara 1; Sabana Mendoza, Mérida 5; Catatumbo River, Zulia 1.—French Guiana: Cayenne 4; Mana River 8; Pied Saut, Oyapock 6.—Brazil: Pará 3; Itacoatiará 1; Santarém 7; Goyana 1; Villa Braga 1; Miritituba 1; Obidos 6; Manacapurú 8.



8: Colombia (Bogotá 5); Venezuela (Catatumbo River, Zulia 1; Macuto, Caracas 1); Brazil (Itacoatiará 1).

**\*Pachyrhynchus castaneus castaneus** (*Jardine and Selby*). RUFOUS BECARD.

*Tityra castanea* JARDINE and SELBY, *Illust. Orn.*, 1, pl. 10, fig. 2 ("*Tityra castaneus*" on plate), Feb., 1827—South America = Brazil.<sup>1</sup>

*Muscipeta aurantia* (not *Muscicapa aurantia* GMELIN) WIED, *Beitr. Naturg. Bras.*, 3, (2), p. 911, 1831—southeastern Brazil (descr. of male and female).

*Pachyrhynchus ruficeps* SWAINSON, *Anim. Menag.*, p. 288, Dec., 1837—Brazil (type in Cambridge (Eng.) Museum examined; =female).<sup>2</sup>

*Bathmidurus melanoleucus* CABANIS, *Arch. Naturg.*, 13, (1), p. 244, 1847—part, descr. of female only and references to JARDINE and SELBY, WIED, and SWAINSON; BURMEISTER, *Syst. Übers. Th. Bras.*, 2, p. 451, 1856—part, descr. of "young male" and female, Nova Friburgo, Rio; EULER, *Journ. Orn.*, 15, p. 223, 1867—Cantagallo, Rio (nest and egg descr.).

*Pachyrhynchus rufescens* (not *Pachyrhynchus rufescens* SPIX) SCLATER, *P.Z.S. Lond.*, 25, p. 79, 1857—part, description and habitat southeastern Brazil; PELZELN, *Orn. Bras.*, 2, p. 122, 1868—Pahor and Ypanemá, São Paulo, and Curytiba, Paraná; idem, *Nunq. Otios.*, 2, p. 292, 1874—Nova Friburgo, Rio.

*Pachyrhynchus rufus* (not *Muscicapa rufa* BODDAERT) BERLEPSCH, *Journ. Orn.*, 21, p. 264, 1873—Blumenau, Santa Catharina (crit.); EULER, *l.c.*, 22, p. 284, 1874 (crit.); SCLATER, *Cat. B. Brit. Mus.*, 14, p. 343, 1888—part, spec. a-h, Bahia, São Paulo, Brazil; ALLEN, *Bull. Amer. Mus. N.H.*, 2, p. 239, 1889—note on the types of *Muscipeta aurantia* WIED; IHERING, *Rev. Mus. Paul.*, 3, p. 212, 1899—Piquete and Iguapé, São Paulo; idem, *l.c.*, 4, p. 156, 1900—Cantagallo and Nova Friburgo, Rio; idem, *l.c.*, 5, p. 299, 1902—Baurú, São Paulo (nest and eggs descr.).

*Zetes polychropterus* (not *Platyrhynchus polychropterus* VIEILLOT) CABANIS and HEINE, *Mus. Hein.*, 2, p. 87, 1859—part; CABANIS, *Journ. Orn.*, 22, p. 89, 1874—Cantagallo, Rio (crit.).

*Hadrostomus borellianus* BERTONI, *Anal. Cient. Parag.*, Ser. 1, No. 1, p. 108, 1901—Alto Paraná, Paraguay.

*Pachyrhynchus castaneus* HELLMAYR, *Abhandl. 2. Kl. Bayr. Ak. Wiss.*, 22, No. 3, p. 670, 1906 (nomenclature).

*Pachyrhynchus castaneus* IHERING and IHERING, *Cat. Faun. Braz.*, 1, p. 307, 1907—Itatiba, Piquete, Ubatuba, Baurú, Rio Feio, and Iguapé (São Paulo), Rio Doce (Espírito Santo), and Bahia; HELLMAYR, *Nov. Zool.*,

<sup>1</sup>The type formed part of the shipment containing the type of *Tityra vieilloti* [= *P. v. viridis*], for which Brazil is given by the describers as habitat.

<sup>2</sup>The type, labeled "*Pachyrhynchus ruficeps* Sw. Brazil. *Lan. mitrata* LICHT. ♀," is a female, without spurious (second) primary, of the south-Brazilian form, with the gray band encircling the rufous crown laterally and posteriorly. It measures: wing 76; tail 67; bill 13.

15, p. 57, 1908—Fazenda Esperança, Goyaz; CHUBB, Ibis, 1910, p. 603—Sapucay, Paraguay; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 311, 1910—Alto Paraná; BERTONI, Anal. Soc. Cient. Arg., 75, p. 94, 1913—Misiones; idem Faun. Parag., p. 58, 1914—Paraguay; DABBENE, Bol. Soc. Physis, 1, p. 348, 1914—Santa Ana, Misiones.

*Pachyrhamphus castaneus castaneus* DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 321, 1912—Gran Potrero, Paraguay.

Range: Eastern Brazil, from southern Bahia, Minas Geraes, and southern Goyaz (Fazenda Esperança, near Goyaz City) south to Santa Catharina, adjoining sections of Paraguay (Sapucay; Alto Paraná), and Argentina (Misiones).<sup>1</sup>

5: Argentina, Misiones (Eldorado 2, Puerto Segundo 1, Río Paraná 1, Caraguatay, Río Paraná, 100 mi. south of Río Iguassú 1).

***Pachyrhamphus castaneus intermedius* Berlepsch.<sup>2</sup> INTERMEDIATE BECARD.**

*Pachyrhamphus intermedius* BERLEPSCH, Ornith. Centralblatt, 4, p. 63, 1879—San Esteban and Puerto Cabello, Venezuela; idem, Journ. Orn., 27, p. 208, 1879—same localities.

*Pachyrhamphus* sp. SCLATER and SALVIN, P.Z.S.Lond., 1868, p. 628—San Esteban.

*Pachyrhamphus rufus* (not *Muscicapa rufa* BODDAERT) SCLATER, Cat. B. Brit. Mus., 14, p. 343, 1888—part, spec. 1, m, San Esteban, Venezuela.

*Pachyrhamphus castaneus intermedius* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 88, 1912—Las Quiguas, San Esteban Valley, Venezuela (crit.).

Range: North coast of Venezuela, from Sucre west to Lara.

***Pachyrhamphus castaneus saturatus* Chapman.<sup>3</sup> SATURATED BECARD.**

<sup>1</sup>Birds from Misiones agree with a series from southern Brazil, while three from Bahia average rather smaller.

Material examined.—Misiones (as specified above) 5.—Brazil: Blumenau, Santa Catharina 2; Curityba, Paraná 1; Ipanemá, São Paulo 5; Pahor, São Paulo 1; Agua Suja, near Bagagem, Minas Geraes 4; "Rio" skins 3; Bahia 3.

<sup>2</sup>*Pachyrhamphus castaneus intermedius* BERLEPSCH: Similar to *P. c. castaneus*, but slightly smaller, particularly with shorter tail; under parts much paler, less tawny, passing into buff on throat and along middle of abdomen. Wing (adult male) 77-79, (female) 71-77; tail 57-62.

Material examined.—Sucre: inland of Cumaná 8.—Distrito Federal: Galipán, Cerro del Avila 1, Loma Redonda, north of Caracas 6.—Carabobo: Las Quiguas, San Esteban Valley 2; Sierra de Carabobo 2.—Lara: Aroa 3.

<sup>3</sup>*Pachyrhamphus castaneus saturatus* CHAPMAN: Near to *P. c. castaneus*, but darker above, the cap deeper chestnut, the back deep hazel, little lighter than the crown; under parts paler and not so uniform ochraceous tawny. Wing (female) 70-73; tail 53-55.

Material examined.—Ecuador: Sarayacu 2, Río Zamora 1, Río Santiago 1.—Peru: Río Tigre, near Pebas (♀ ad., Oct. 19, 1883. J. Hauxwell. Berlepsch Collection) 1.—Brazil: Manacapurú 1; Tonantins 6; São Paulo de Olivença 2; Caviana, Rio Solimões 3; Hyutanahán, Rio Purús 2.

*Pachyrhamphus castaneus saturatus* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 628, 1914—La Morelia, Río Caquetá, Colombia; idem, l.c., 36, p. 492, 1917—La Morelia; idem, l.c., 55, p. 542, 1926—eastern Ecuador.

*Pachyrhamphus niger* (not of SPIX) TACZANOWSKI, P.Z.S.Lond., 1882, p. 23—Yurimaguas, Peru, part (female); SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 227, 1926—part, descr. of female, Yurimaguas.<sup>1</sup>

*Pachyrhamphus rufescens* (not of SPIX) TACZANOWSKI, Orn. Pér., 2, p. 368, 1884—Pebas and Yurimaguas, Peru (descr. of male and female).

*Pachyrhamphus rufus* (not *Muscicapa rufa* BODDAERT) SCLATER, Cat. B. Brit. Mus., 14, p. 343, 1888—part, spec. j, k, Sarayacu, Ecuador; (?) IHERING and IHERING, Cat. Faun. Braz., 1, p. 307, 1907—part, Rio Juruá; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 16, 1899—Río Zamora and Río Santiago, Ecuador (spec. examined); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 541, 1926—Ecuador (ex SALVADORI and FESTA).

*Pachyrhamphus castaneus intermedius* (not of BERLEPSCH) CHUBB, Ibis, 1910, p. 604—Sarayacu, Ecuador (crit.).

(?) *Pachyrhamphus cinereus* (not of BODDAERT) IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Rio Juruá.

Range: Tropical Zone of southeastern Colombia (La Morelia, Río Caquetá), eastern Ecuador (Sarayacu; Río Zamora; Río Santiago), northern Peru (Pebas and Río Tígre, Río Marañón; Yurimaguas, lower Huallaga, dept. Loreto), and northwestern Brazil (Caviana, Manacapurú, Tonantins, and São Paulo de Olivença, Rio Solimões; Hyutanahán, Rio Purús).<sup>2</sup>

### ***Pachyrhamphus castaneus* subsp.<sup>3</sup>**

<sup>1</sup>M. Sztolcman is, of course, quite mistaken in associating this rufous female with *P. niger*. It is now a well-established fact that there are a number of species in which both sexes are rufous, the adult male differing only by possessing the spurious second primary.

<sup>2</sup>I suspect that *Pachyrhamphus cinereus* SCLATER and SALVIN (P.Z.S.Lond., 1866, p. 190—Sarayacu; l.c., 1873, p. 284—Sarayacu, Chyavetas, and Chamicuros, Peru) and TACZANOWSKI (Orn. Pér., 2, p. 360, 1884—part, same localities) were also based on specimens of this rufous species, considered at that time to represent the female and immature plumage of species with gray or black males. There is an example from the upper Ucayali in the British Museum, erroneously referred to *P. cinnamomeus* by the late P. L. SCLATER (Cat. B. Brit. Mus., 14, p. 343, 1888—spec. y).

It remains to be seen to what form Bolivian birds (*Pachyrhamphus rufescens* (not of SPIX) ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—"La Paz") should be referred. As in the case of so many other species in H. H. Rusby's collection, the locality "La Paz" is doubtless erroneous.

<sup>3</sup>*Pachyrhamphus castaneus* subsp.: Nearly related to *P. c. saturatus*, but paler throughout, the under parts particularly more buffy, less ochraceous tawny.

Material examined.—In addition to an immature male from Ig. de Paituna (Monte Alegre) in the Goeldi Museum and an unsexed bird (without rudimentary second primary) from Santarém in the Museu Paulista, I have seen thirty-six skins of this obviously undescribed form from Santarém, Obidos, and islands near Obidos in the collection of the Carnegie Museum.



*Pachyrhamphus rufus* (not *Muscicapa rufa* BODDAERT) RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém, Rio Tapajóz; IHERING and IHERING, Cat. Faun. Braz., 1, p. 307, 1907—part, Santarém (spec. examined); SNETHLAGE, Journ. Orn., 61, p. 525, 1913—Varzea north of the Amazon.

*Pachyrhamphus castaneus* (not *Tityra castanea* JARDINE and SELBY) SNETHLAGE, Bol. Mus. Goeldi, 8, p. 350, 1914—Monte Alegre (Ig. de Paituna), Obidos, and Rio Jamundá (Faro).

Range: Northern Brazil, on the banks of the lower Amazon (Faro, Rio Jamundá; Obidos; Santarém, Rio Tapajóz).

**\**Pachyrhamphus cinnamomeus cinnamomeus* Lawrence. CINNAMON BECARD.**

*Pachyrhamphus cinnamomeus* LAWRENCE, Ann. Lyc. Nat. Hist. N. Y., 7, p. 295, 1862—Lion Hill, Panama Railroad.

*Pachyrhamphus rufescens?* (not of SPIX) CASSIN, Proc. Ac. Nat. Sci. Phila., 1860, p. 189—Turbo, Colombia.

*Pachyrhamphus*—? SCLATER and SALVIN, Ibis, 1860, p. 36—Cobán, Guatemala; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 296, 1862—Lion Hill, Panama.

*Pachyrhamphus cinnamomeus* LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 8, p. 182, 1867—Greytown, Nicaragua; idem, l.c., 9, p. 116, 1868—San José, Angostura, Turrialba, Tucurriquí, Costa Rica; RIDGWAY, Proc. U. S. Nat. Mus., 10, p. 589, 1887—Segovia River, Honduras; SCLATER, Cat. B. Brit. Mus., 14, p. 342, 1888—part, spec. a-p, u, Choctum, Vera Paz, Angostura, Tucurriquí, Lion Hill, Chepo, Balzar (Ecuador);<sup>1</sup> SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 126, 1890—part, British Honduras and Guatemala south to Ecuador (excl. Remedios, Colombia); RICHMOND, Proc. U.S.Nat. Mus., 16, p. 508, 1893—Río Escondido, Nicaragua; HARTERT, Nov. Zool., 5, p. 489, 1898—Chimbo and Cachaví, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Punta de Sabana, Panama; BANGS, Proc. New Engl. Zool. Cl., 2, p. 23, 1900—Loma del León, Panama; idem, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Yaruca, Honduras; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 840, 1907—part, southern Mexico south to western Ecuador (excl. Bogotá, Remedios, Bucaramanga, "Cauta," Colombia, and Ucayali, eastern Peru);<sup>1</sup> CARRIKER, Ann. Carnegie Mus., 6, p. 666, 1910—Carrillo, Cariblanco de Sarapiquí, Tuis, Guacimo, and El Hogar, Costa Rica; FERRY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 269, 1910—Guayabo, Costa Rica; HELLMAYR, P.Z.S.Lond., 1911, p. 1144—Guineo, El Tigre, San Joaquín, Noanamá, and Nóvita, Pacific Colombia; CHAPMAN, Bull. Amer. Mus. N. H., 36, p. 491, 1917—part, Alto Bonito, Juntas de Tamaná, Nóvita, Noanamá, Buenaventura, San José, Los Cisneros, and Barbaocoas, Pacific Colombia; STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 269, 1918—Gatún, Panama; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Siquirres, Costa Rica and San Juan del Norte, Nicaragua; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 213, 1922—Jesusito, Darién; CHAPMAN, Bull. Amer.

<sup>1</sup>The bird from the Ucayali, Peru, is probably referable to *P. castaneus saturatus* CHAPMAN.

Mus. N.H., 55, p. 542, 1926—Bucay, Esmeraldas, Manaví, Chimbo, Santa Rosa, and Porto Velo, Ecuador; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—Cana, Darién.

Range: Tropical Zone of southern Mexico (in state of Tabasco) and southward through Guatemala, British Honduras, Honduras, Nicaragua, Costa Rica, and Panama to Pacific Colombia and western Ecuador.<sup>1</sup>

5: Costa Rica (Guayabo 2); Colombia (Quibdó, Atrato River 1; Alto Bonito, Antioquia 1; Nóvita, Río San Juan 1).

**\**Pachyrampus cinnamomeus magdalenae* Chapman.<sup>2</sup> MAGDALENA BECARD.**

*Pachyrampus magdalenae* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 629, 1914—Algodonal, lower Magdalena Valley, Colombia; idem, l.c., 36, p. 491, 1917—Algodonal.

<sup>1</sup>Birds from Pacific Colombia, while agreeing in the coloring of the upper parts with those from Costa Rica, are less deeply colored underneath, and thereby form the transition to *P. c. magdalenae*, of eastern Colombia. The majority are not so dark or so uniformly ochraceous as those from Costa Rica and Guatemala, but deeper buff, especially on breast and sides, than the average from Santa Marta and the Magdalena Valley, though the most deeply colored individuals are not separable from certain light-bellied Central American skins, whereas the palest (one from Sautata and one from Córdoba, Valle) can be exactly matched by the darkest variety of *magdalenae* (Carnegie Museum, No. 52798, Jaraquiel). Unfortunately, no material from the Canal Zone, the type locality, has been available for examination.

Material examined.—Guatemala 3; Costa Rica 12.—Colombia: Sautata, Río Atrato 3; Alto Bonito, Río Sucio 1; Murindo, Antioquia 3; Quibdó 4; El Tambo, Chocó 1; Andagoya, Chocó 4; Potedo, Chocó 1; Malagita, Chocó 1; Noanamá, Río San Juan 2; Nóvita, Río Tamaná 2; El Tigre, Río Tamaná 1; Guineo, Río Calima 1; San Joaquín, Bahía del Chocó 2; Córdoba, Valle 2.—Ecuador: Chimbo 1.

<sup>2</sup>*Pachyrampus cinnamomeus magdalenae* CHAPMAN: Similar to *P. c. cinnamomeus*, but decidedly paler throughout; upper parts browner, sayal brown rather than rufous tawny, the cap hardly darker than the back; the wing coverts with more conspicuous pale edges; lower surface buffy rather than ochraceous tawny, passing into whitish on the abdomen.

Birds from the Santa Marta region (Tucurínca and Fundación) are identical with a series from the lower Magdalena (Calamar and Gamarra) and Jaraquiel, (dept. Bolívar) in the collection of the Carnegie Museum, Pittsburgh. Six specimens from Santa Elena, Mérida, and six from Zulía, Venezuela, as well as two adult males from Santander, eastern Colombia (Carnegie Museum, No. 59317, Bucaramanga; No. 58705, El Tambor, Río Lebrija) are very similar, though perhaps on the average more reddish on the back, with the crown somewhat darker, but not so chestnut rufous as in *P. c. cinnamomeus*, from Pacific Colombia. Underneath, they resemble the darker specimens from the Magdalena, the male from El Tambor being in no way distinguishable from No. 54360, Gamarra, but can also be matched by certain individuals from the Pacific coast of Colombia. Unless separated again, they must doubtless be ranked with *magdalenae* rather than *cinnamomeus*.

Material examined.—Colombia: Fundación 8; Tucurínca 2; Jaraquiel, dept. Bolívar 4; Calamar, lower Magdalena 5; Gamarra, dept. Magdalena 2; Bucaramanga 1; El Tambor, Río Lebrija, Santander 1; "Bogotá" 2.—Venezuela: Santa Elena, Mérida 6; Encontrados, Zulía 3; Oropé, Zulía 3.

*Pachyrhamphus cinnamomeus* (not of LAWRENCE) SCLATER and SALVIN, P. Z. S. Lond., 1879, p. 518—Remedios, Antioquia; BERLEPSCH, Journ. Orn., 32, p. 305, 1884—Bucaramanga; SCLATER, Cat. B. Brit. Mus., 14, p. 342, 1888—part, spec. q-t, v-x, Remedios, Bogotá, "Cauta" [=Canta, below Bucaramanga, Santander], Colombia; RIDGWAY, Bull. U.S.Nat. Mus. Mus., 50, Part 4, p. 840, 1907—part Bogotá, Remedios, Bucaramanga, "Cauta," Colombia; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 491, 1917—part, Puerto Valdivia, Malena, west of Honda and (?) Buenavista, above Villavicencio, Colombia.

*Pachyrhamphus* sp.? WYATT, Ibis, 1871, p. 334—San Nicolás, below Bucaramanga, Santander, Colombia.

*Pachyrhamphus cinnamomeus magdalenae* TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 328, 1922—Fundación and Tucurínca, Santa Marta region (crit.).

Range: Northern and eastern Colombia (Jaraquiel, dept. Bolívar; lower Cauca; Magdalena Valley and tributaries; Santa Marta region; "Bogotá") and western Venezuela (Santa Elena, Mérida; Encontrados and Orope, Zulía).

6: Venezuela, Zulía (Encontrados 3, Orope 3).

**\**Pachyrhamphus polychropterus spixii* (Swainson). SPIX'S BECARD.**

*Pachyrhynchus spixii* SWAINSON, Anim. Menag., p. 289, Dec., 1837—Brazil? (type of male in Coll. SWAINSON, now in Cambridge (Eng.) Museum examined).<sup>1</sup>

*Pachyrhamphus notius* BREWSTER and BANGS, Proc. New Engl. Zool. Cl., 2, p. 53, Feb. 15, 1901—Concepción del Uruguay, Entre Ríos; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 311, 1910—lower Uruguay.

<sup>1</sup>Swainson, in diagnosing the species, ascribes it to the Paris Museum and his own collection, and while I have not been able to trace the whereabouts of the female, two adult males bearing the name *P. spixii* are still in existence. One, kindly sent by Dr. H. Gadow from the Swainson Collection, now in the University Museum of Cambridge, England, and labeled by Swainson himself "*Pachyrhynchus Spixii*. Male. Brazil?", agrees in every particular with his description, notably in having the nape, back and interscapulars dull black, decidedly contrasted with the dark gray rump and upper tail coverts, and the under parts but slightly paler than the rump. In coloration and size, it is identical with specimens from Rio de Janeiro, which I am unable to separate from Paraguayan and Argentina skins (*P. notius*). The other example, a mounted bird in the Paris Museum (No. 3625. ♂. *P. polychropterus* V., *P. spixii* Sw. type, M. Menétriér [sic], 1824. Brésil"), however, is very different, having a whitish orbital ring, the back light ashy gray like the rump, with restricted outer margins of glossy black to some of the lateral interscapulars only, and the under parts of a very much paler, clearer gray, while the dimensions are much smaller. As a matter of fact, it is a perfectly typical specimen of *P. marginatus* (as stated in Nov. Zool., 32, p. 17, footnote 1, 1925), but it disagrees so absolutely with the characters given by Swainson that I have no doubt whatever it is wrongly marked as "type." The handwriting on the label, while unknown to me, is certainly not Swainson's. Under these circumstances, I do not see any alternative but to accept Swainson's term *spixii* for the large southern race of the gray-bellied South American Becard, and venture to suggest *Rio de Janeiro* as its type locality. The specimen now in



*Climacocercus cyanocephalus* BERTONI,<sup>1</sup> Anal. Cient. Parag., Ser. I, No. 1, p. 112, Jan., 1901—Alto Paraná, Paraguay.

*Pachyrhamphus polychropterus* (not of VIEILLOT) SCLATER, P.Z.S.Lond., 25, p. 77, 1857—Rio de Janeiro to Rio Grande do Sul (synon. in part); PELZELN, Orn. Bras., 2, p. 121, 1868—part, Rio de Janeiro, Sapitiba, Mugy das Cruzes (São Paulo), Curytiba (Paraná), Itararé (São Paulo), Rio Araguay (Goyaz), Cuyabá and Barra do Jaurú (Matto Grosso); DURNFORD, Ibis, 1878, p. 61—Belgrano, Buenos Aires; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 140, 1885—Linha Pirajá, Rio Grande do Sul; SCLATER and HUDSON, Arg. Orn., 1, p. 162, 1888—Buenos Aires; SCLATER, Cat. B. Brit. Mus., 14, p. 345, 1888—part, spec. 1-o, São Paulo, Rio Grande do Sul, and Belgrano, Buenos Aires; WITHINGTON, Ibis, 1888, p. 466—Lomas de Zamora, Buenos Aires (spec. examined); KERR, I.c., 1892, p. 131—near Fortin Page, lower Pilcomayo; ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Chapada, Matto Grosso; APLIN, Ibis, 1894, p. 181—Rio Negro, Uruguay (spec. examined); IHERING, Anuario Est. Rio Grande do Sul, 16, p. 127, 1899—Mundo Novo and São Lourenço; idem, Rev. Mus. Paul., 3, p. 213, 1899—Iguapé and Ypiranga, São Paulo; idem, Cat. Faun. Braz., 1, p. 308, 1907—part, Bebedouro, Itatiba, Yporanga, Itapura, Alto da Serra, Ubatuba, Avandhandava, Iguapé, Rincão, and São Sebastião, São Paulo; CHUBB, Ibis, 1910, p. 605—Sapucay, Paraguay; PEREYRA, El Hornero, 3, p. 169, 1923—Escobar and San Isidro, Buenos Aires.

*Bathmidurus polychropterus* STEPELMANN and SCHULZ, Bol. Ac. Nac. Córdoba, 10, p. 402, 1890—Córdoba.

*Pachyrhamphus* sp. incog. BARROWS, Bull. Nutt. Orn. Cl., 8, p. 203, 1883—Concepción del Uruguay, Entre Rios.

*Pachyrhamphus niger* (not of SPIX) BERLEPSCH, Journ. Orn., 35, p. 13, 1887—Lambaré, Paraguay; BERTONI, Faun. Parag., p. 58, 1914 (ex BERLEPSCH).

*Zetes polychropterus* LILLO, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 188, 1902—Tapia, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, p. 51, 1905—Tapia.

*Pachyrhamphus polychropterus polychropterus* HARTERT and VENTURI, Nov. Zool., 16, p. 205, 1910—Barracas al Sud, Buenos Aires, and Ocampo,

the University Museum at Cambridge (Eng.) is obviously the actual type from which Swainson drew up his description.

*P. polychropterus spixii*, while closely related to the typical race, may be recognized by its larger size and, in the male sex, by its darker, more slaty under parts and more solidly black back.

Males from São Paulo and Rio de Janeiro average paler underneath and are perhaps slightly smaller than those from Paraguay and Argentina.

Length of wing (adult males): type (unspecified) 82; Rio de Janeiro 80, 81, 82; São Paulo 82, 83; Sapucay, Paraguay 83; Santa Florencia, Rio Negro, Uruguay 82; Belgrano, Buenos Aires 82; Lomas de Zamora, Buenos Aires 84; Ocampo, Santa Fé 84; Isca-yacú, Santiago del Estero 84; Concepción, Tucumán 81, 82.

<sup>1</sup>Bertoni identifies his bird with *Thamnophilus cyanocephalus* VIEILLOT (Nouv. Dict. Hist. Nat., nouv. éd., 3, p. 318, 1816—based on Azara, No. 237, Paraguay), which is described as having a white stripe along the middle of the crown, a feature not found in Spix's Becard. Azara's species appears to be undeterminable.

Santa Fé; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 311, 1910—range in Argentina; MARELLI, Mem. Min. Obr. Publ. Buenos Aires, for 1922-23, p. 643, 1924—Argentina; HOLT, Bull. Amer. Mus. N.H., 57, p. 310, 1928—Bemfica, Serra do Itatiaya.

*Pachyrhamphus polichropterus* BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná, Paraguay.

*Pachyrhamphus polychropterus polychropterus* BANGS and PENARD, Bull. Mus., Comp. Zool., 64, p. 383, 1921—northern Argentina, southern Bolivia, Uruguay, southern Brazil (monog.); SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 180, 1926—Guarapuava, Candido de Abreu, and Invernadinha, Paraná.

*Pachyrhamphus polychropterus notius* DABBENE, El Hornero, 1, p. 239, 1919—Isla Martin Garcia (crit.); TREMOLERAS, l.c., 2, p. 21, 1920—Montevideo; BANGS and PENARD, Proc. Biol. Soc. Wash., 35, p. 225, 1922 (crit.); MARELLI, Mem. Minist. Obr. Publ. Buenos Aires, for 1922-23, p. 643, 1924—estuary of La Plata River; WETMORE, Bull. U.S. Nat. Mus., 133, p. 293, 1926—San Vicente, Uruguay.

Range: Northern Argentina, south to Buenos Aires and Córdoba; Uruguay; Paraguay; southern Brazil, from Rio de Janeiro, southern Minas Geraes, São Paulo, and Matto Grosso south to Rio Grande do Sul; and eastern Bolivia (in depts. Santa Cruz and Tarija).

5: Argentina (Concepción, Tucumán 3; Isca-yacú, Santiago del Estero 1; Ocampo, Santa Fé 1).

**\**Pachyrhamphus polychropterus polychropterus* (Vieillot). VIEILLOT's BECARD.**

*Platyrhynchus polychropterus* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 27, p. 10, 1818—"Nouvelle Hollande," errore; we suggest Bahia, eastern Brazil (type in Paris Museum examined);<sup>1</sup> idem, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 835, 1821—"Nouvelle Hollande."

*Platyrhynchus polychropterus* PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, p. 357, 1855—note on type.

*Muscipeta splendens* WIED, Beitr. Naturg. Bras., 3, (2), p. 906, 1831—eastern Brazil, locality not specified (type in American Museum of Natural History examined; =adult male).

*Bathmidurus variegatus* [not of SPIX (?)]<sup>2</sup> CABANIS, Arch. Naturg., 13, (1), p. 244, 1847—Brazil, part; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 452, 1856—Brazil, part.

<sup>1</sup>I have recently compared the type in the Paris Museum (No. 3621. Exp. Baudin) with numerous examples from various parts of Brazil and Argentina, and found it to be identical, in coloration and size, with skins from Bahia. The wing measures 75 (in other Bahia specimens 73, 75, 75, 77, 78, 78); the tail 57 (against 57, 58, 60, 60, 60, 62).

<sup>2</sup>*Pachyrhynchus variegatus* SPIX (Av. Bras., 2, p. 31, pl. 43, fig. 2, 1825—no locality given; type lost), based on a female or immature example of this group, appears to me utterly unidentifiable. It might have been either *polychropterus*,

*Pachyrhamphus polychropterus* SCLATER, Cat. B. Brit. Mus., 14, p. 345, 1888—part, spec. f-k, Bahia; IHERING, Cat. Faun. Braz., 1, p. 308, 1907—part, Bahia; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 70, 1910—Fazenda de Fora, Rio Grande, Bahia, and Lagôa do Purgatorio and Parnaguá, Piauhý (spec. examined).

*Pachyrhamphus niger polychropterus* ALLEN, Bull. Amer. Mus. N.H., 2, p. 238, 1889—note on Wied's type.

*Pachyrhamphus polychropterus splendens* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 385, 1921—Bahia to Ceará (monog.).

*Pachyrhamphus polychropterus polychropterus* BANGS and PENARD, Proc. Biol. Soc. Wash., 35, p. 225, 1922 (crit.); HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 341, 1929—Barra do Corda, Maranhão and Ibiapaba, Piauhý (crit.).

*Pachyrhynchus polychropterus* REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 154, 1925—Rio Grande, near Fazenda de Fora, Bahia and southern Piauhý.

Range: Eastern Brazil, from Bahia north to Ceará, Piauhý, and southern Maranhão (Barra do Corda).<sup>1</sup>

3: Brazil (Bahia 1; Ibiapaba, Piauhý 1; Barra do Corda, Maranhão 1).

**\**Pachyrhamphus polychropterus niger* (Spix). BLACK-BELLIED BECARD.**

*Pachyrhynchus niger* SPIX, Av. Bras., 2, p. 33, pl. 45, fig. 1 (=adult male), 1825—no locality stated—"Amazonas, prope Fonteboa" designated by BERLEPSCH and HARTERT (Nov. Zool., 9, p. 56, 1902)—type lost; SWAINSON, Anim. Menag., p. 290, Dec., 1837—Brazil (descr. of male); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 669, 1906 (crit.).

*Pachyrhamphus nigriventris* SCLATER, P.Z.S.Lond., 25, p. 76, 1857—new name for *Pachyrhynchus niger* SPIX, part, North Brazil.

*Pachyrhamphus niger* SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 978—Pebas; idem, l.c., 1873, p. 284—Nauta, Pebas, and upper Ucayali, Peru; TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas (part, male); idem, Orn. Pér., 2, p. 363, 1884—Nauta, Pebas, upper Ucayali, Yurimaguas, and Tarpoto, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 343, 1888—part, spec. o-w, Pebas, Nauta, Río Napo and Sarayacu, Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—lower Beni, Bolivia; BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 369—La Merced, Peru; GOODFELLOW, Ibis, 1901, p. 710—Archidona, Ecuador (spec. examined); IHERING, Cat.

*spixii*, or *niger*, in the ranges of all of which Spix did some collecting, and I consider it undesirable to substitute it for any of these terms which rest on substantial evidence.

<sup>1</sup>Material examined.—Bahia 10; Fazenda de Fora, Rio Grande, Bahia 1; Ibiapaba, Piauhý 1; Lagôa do Purgatorio, Piauhý 1; Parnaguá, Piauhý 2; Barra do Corda, Maranhão 1; unspecified (the type) 1.



Faun. Braz., 1, p. 308, 1907—range (part); SNETHLAGE, Journ. Orn., 56, p. 13, 1908—Monte Verde and Bom Lugar, Rio Purús; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 350, 1914—part, Bom Lugar and Monte Verde, Rio Purús; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 227, 1926—Yurimaguas (part, male).

*Pachyrhamphus polychropterus* (not of VIEILLOT) PELZELN, Orn. Bras., 2, p. 121, 1868—part, Salto do Girão and Borba, Rio Madeira (spec. examined).

*Pachyrhamphus* sp. inc., TACZANOWSKI, P.Z.S.Lond., 1882, p. 23—Yurimaguas, Peru (descr. of young male and female).

*Pachyrhamphus niger niger* HELLMAYR, Nov. Zool., 14, p. 363, 1907—Humaythá and Borba, Rio Madeira; idem, l.c., 17, p. 314, 1910—Calama, Rio Madeira.

*Pachyrhamphus polychropterus niger* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 492, 1917—part, La Morelia and Florencia, Caquetá, southeastern Colombia.

*Pachyrhamphus polychropterus variegatus* (not of SPIX?) BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 386, 1921—lower Beni, Bolivia, and Porto Velho, Rio Madeira (monog.); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 542, 1926—eastern Ecuador.

Range: Western Brazil, from the Rio Madeira and Rio Negro westwards; eastern Peru; eastern Ecuador; southeastern Colombia (La Morelia and Florencia, Caquetá).<sup>1</sup>

4: Peru (Yurimaguas 1; Río Colorado, Chanchamayo 1; Huachipa, Huánuco 2).

**\**Pachyrhamphus polychropterus tristis* (Kaup).<sup>2</sup> KAUP'S BECARD.**

*Psaris marginatus tristis* KAUP, P.Z.S.Lond., 19, "1851," p. 48, October,

<sup>1</sup>Material examined.—Peru: Nauta 2; Pebas 3; Yurimaguas 1; Río Colorado, Chanchamayo 1; Huachipa 2.—Ecuador: Archidona 1; Sarayacu 3; Río Napo 2.—Brazil: Hyutanahán, Rio Purús 8; Arimã, Rio Purús 3; Caviana, Rio Solimões 5; São Paulo de Olivença, Rio Solimões 2; Borba, Rio Madeira 5; Calama, Rio Madeira 2; Humaythá, Rio Madeira 4.

<sup>2</sup>*Pachyrhamphus polychropterus tristis* (KAUP) is exceedingly close to, and in many cases not distinguishable from, *P. p. niger*. Yet on comparing twelve males from French Guiana (Cayenne and Mana River) with a series from Upper Amazonia, it is evident that they generally have less black in the plumage, the under parts being mostly slate gray, more or less freckled with whitish along the abdominal line, and the rump likewise extensively slate gray, whereas in *P. p. niger* both upper and lower surfaces are almost entirely black. Birds from Venezuela, British Guiana, and Trinidad vary within the same limits, and I do not see how either *P. macconnelli* or *P. albiloris* can be maintained. The type of *P. n. tobagensis*, too, is matched by numerous examples from Guiana and Venezuela. Males from Lower Amazonia (Obidos; Santarém; Rio Branco) are exactly intermediate between *tristis* (of Guiana and Venezuela) and *niger* (of Peru and adjacent parts of western Brazil). A series from Santarém is particularly instructive in this respect. The darkest specimen (Carnegie Museum, No. 73178) is hardly separable from certain individuals taken on the banks of the Rio Purús, while the male with the lightest under parts is even clearer gray than *P. p. cinereiventris*, being,

1852—no locality stated, type in Derby Collection, now in Liverpool Museum; Cayenne suggested by BANGS and PENARD, 1921.<sup>1</sup>

*Pachyrhamphus niger tobagensis* CORY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 343, 1916—Tobago.

*Pachyrhamphus macconnelli* CHUBB, Bull. Brit. Orn. Cl., 40, p. 73, 1920—Bonasica River, British Guiana; idem, Birds Brit. Guiana, 2, p. 274, 1921—Upper Takutú Mountains, Ituribisi River, Supenaam River, Bartica, Essequibo, Bonasica River, Roraima.

*Pachyrhamphus albiloris* CHUBB, Bull. Brit. Orn. Cl., 40, p. 73, 1920—San Esteban, Carabobo, Venezuela.

*Pachyrhamphus nigriventris* SCLATER, P.Z.S.Lond., 25, p. 76, 1857—part, Cayenne, Venezuela, Trinidad.

*Bathmidurus niger* (not of SPIX) CABANIS, Arch. Naturg., 13, (1), p. 243, 1847—Guiana, Surinam, Cayenne, and Brazil; idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 698, 1848—coastal forests.

*Pachyrhynchus niger* JARDINE, Ann. Mag. Nat. Hist., 20, p. 331, 1847—Tobago.

*Pachyrhamphus albogriseus* (not of SCLATER) TAYLOR, Ibis, 1864, p. 87—Trinidad (spec. examined; =female); CORY, Auk, 10, p. 220, 1893—Tobago (=female); HELLMAYR, Nov. Zool., 13, p. 58, 1906—Trinidad (ex TAYLOR).

*Tityra nigra* LÉOTAUD, Ois. Trinidad, p. 241, 1866—Trinidad.

*Pachyrhamphus polychropterus* (not of VIEILLOT) SCLATER and SALVIN, P.Z.S. Lond., 1867, p. 579—Mexiana Island; PELZELN, Orn. Bras., 2, p. 121, 1868—part, Serra Caraumán and Barra [=Manáos] (spec. examined).

*Pachyrhamphus niger* TAYLOR, Ibis, 1864, p. 87—Trinidad; SALVIN, l.c., 1885, p. 302—Roraima; SCLATER, Cat. B. Brit. Mus., 14, p. 343, 1888—part, spec. d-n, Bogotá, Valencia (Venezuela), Trinidad, Roraima (British Guiana), Cayenne, Pará; CORY, Auk, 10, p. 220, 1893—Tobago; ALLEN, Bull. Amer. Mus. N.H., 4, p. 55, 1892—El Pilar, Bermúdez, Venezuela; CHAPMAN, l.c., 6, p. 47, 1894—Princetown, Trinidad; DALMAS, Mém. Soc. Zool. France, 13, p. 139, 1900—Tobago; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 56, 1902—Maipures, Caicara, Altagracia, and Ciudad

however, more distinctly freckled with white along the middle of the belly. Taken as a whole, birds from Amazonia east of the Rio Negro appear, however, nearer to the Guianan type, and the black phase, predominating on the Rio Solimões and west of the Rio Madeira, is only occasionally met with on the eastern stretches of the Amazon. Some specimens from northern Venezuela, notably one from Lagunita de Aroa, again closely approach the Santa Marta race (*P. p. cinereiventris*), thus forming the link to the western representatives of the group.

Material examined.—Northern Brazil: Santarém 8; Obidos 5; Rio Branco (Serra Caraumán and Boa Vista) 2.—French Guiana (Cayenne and Mana River) 14.—British Guiana (Roraima) 4.—Venezuela (north coast from Sucre to Aroa; San Pedro, Caura Valley) 82.—Trinidad (Caparo, Aripo) 15.—Tobago 7.—"Bogotá" 5.

<sup>1</sup>The type should be reexamined. Unfortunately, it was not among the specimens kindly forwarded to me by Dr. Simpson from the collection of the Liverpool Museum.

Bolívar, Río Orinoco, and Suapure, La Prición, Caura, Venezuela; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 190, 1906—Aripo, Trinidad; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará, Marajó, Mexiana, Monte Alegre; HAGMANN, Zool. Jahrb., (Syst.), 26, p. 32, 1907—Mexiana; IHERING, Cat. Faun. Braz., 1, p. 308, 1907—range (part); BERLEPSCH, Nov. Zool., 15, p. 140, 1908—Cayenne, French Guiana (crit.); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 350, 1914—part, Pará, Providencia, Quati-purú, Rio Tocantins (Ilha Pirunum, Arumatheua), Marajó (São Natal), Mexiana, Arumanduba, Monte Alegre, Río Maecurú, Obidos, Río Jamundá (Faro); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—São Bento and Tury-assú, northern Maranhão.

*Pachyrhamphus polychropterus cinereiventris* (not of SCLATER) PHELPS, Auk, 14, p. 365, 1897—Cumanacoa and San Antonio, Bermúdez, Venezuela; HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 89, 1912—Cumbre Chiquita and Las Quiguas, Carabobo, Venezuela (crit.); HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 120, 1912—Mexiana.

*Pachyrhamphus niger cinereiventris* HELLMAYR, Nov. Zool., 13, p. 27, 1906—Caparo and Pointe Gourde, Trinidad.

*Pachyrhamphus polychropterus niger* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 1, p. 364, 1908—Carenage and Aripo, Trinidad; idem, l.c., 2, p. 252, 1916—banks of the Orinoco from Las Barrancas as far as San Fernando de Atabapo, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 492, 1917—part, Buenavista and Villavicencio, eastern Colombia; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 70, 1918—vicinity of Paramaribo, Surinam.

*Pachyrhamphus cinereiventris* STONE, Proc. Ac. Nat. Sci. Phila., 65, p. 205, 1913—Guinipa Village, Bermúdez, Venezuela.

*Pachyrhamphus polychropterus tristis* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 387, 1921—Guiana, Venezuela, Trinidad, and Tobago (monog.).

Range: French, Dutch, and British Guiana; Venezuela, from the north coast south to the Orinoco and its tributaries; islands of Trinidad and Tobago; eastern Colombia ("Bogotá"; Buenavista and Villavicencio, at the eastern foot of the Eastern Andes); northern Brazil, west to the Rio Negro and Rio Tapajóz, east to the wooded coast region of Maranhão.

4: Brazil (Boa Vista, Rio Branco 1); Venezuela (Colón, Táchira 1); Tobago 2.

*Pachyrhamphus polychropterus cinereiventris* Sclater.<sup>1</sup> GRAY-BELLIED BECARD.

*Pachyrhamphus cinereiventris* SCLATER, Cat. Coll. Amer. Birds, p. 242, 1862—Santa Marta, Colombia (type in British Museum examined); idem,

<sup>1</sup>*Pachyrhamphus polychropterus cinereiventris* SCLATER: Male nearest to *P. p. tristis*, but smaller; under parts clearer and more uniform gray, sometimes obscurely freckled with whitish along middle line, very rarely washed with blackish



Cat. B. Brit. Mus., 14, p. 344, 1888—part, spec. n-p, Santa Marta; ALLEN, Bull. Amer. Mus. N.H., 13, p. 154, 1900—part, Bonda and Ciénaga; idem, l.c., 21, p. 287, 1905—Cacagualito and Bonda (nest and eggs descr.).

*Pachyrhamphus niger* (not of SPIX) SALVIN and GODMAN, Ibis, 1880, p. 169—Santa Marta.

*Pachyrhamphus polychropterus cinereiventris* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 829, 1907—part, Santa Marta; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 326, 1922—Bonda, Mamatoco, Tucurínca, Fundación, and Valencia, Santa Marta district (crit.); GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—Cana, Darién.

*Pachyrhamphus polychropterus cinereiventris* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 390, 1921—Santa Marta region (monog.).

Range: Northern Colombia, in depts. of Bolívar (Jaraquiel) and Magdalena (Gamarra and Calamar, lower Magdalena; Santa Marta region), and extreme eastern Panama (Cana, Darién).

**\**Pachyrhamphus polychropterus similis* Cherrie.<sup>1</sup> SLATE-BELLIED BECARD.**

*Pachyrhamphus similis* CHERRIE, Proc. U.S.Nat. Mus., 14, p. 343, in text, Sept. 4, 1891—Greytown, Nicaragua.

*Pachyrhamphus costaricensis* (not *P. versicolor costaricensis* BANGS, 1908) CHUBB, Bull. Brit. Orn. Cl., 40, p. 74, 1920—Bebedero, Costa Rica.

*Pachyrhamphus polychropterus tantulus* BANGS and PENARD, Proc. Biol. Soc. Wash., 34, p. 78, 1921—new name for *Pachyrhamphus costaricensis* CHUBB, preoccupied.

*Pachyrhamphus polychropterus* (not of VIEILLOT) MOORE, P.Z.S.Lond., 27, p. 56, 1859—Omoa, Honduras; SCLATER and SALVIN, Ibis, 1859, p. 124—Omoa; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 8, p. 182, 1867—Greytown, Nicaragua.

*Pachyrhamphus marginatus?* (not *Todus marginatus* LICHTENSTEIN) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 330, 1862—Lion Hill, Panama.

*Pachyrhamphus cinereiventris* (not of SCLATER) SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 361—Panama Railroad; LAWRENCE, Ann. Lyc. Nat. Hist.

on throat and foreneck. Wing (adult male) 72-74, (type) 73; tail 54-59, (type) 57½; bill 13-14.

Recent reexamination of the type shows it to be a specimen of the north-Colombian race, although it represents the rather unusual variant with some blackish tinge on the anterior under parts.

Material examined.—Santa Marta region: Bonda 7; Fundación 4; Ciénaga 1; Santa Marta" (the type) 1.—Calamar, Bolívar 1; Gamarra, Magdalena 1.

<sup>1</sup>*Pachyrhamphus polychropterus similis* CHERRIE, though nearly allied to *P. p. cinereiventris*, may be distinguished by slightly smaller size, and somewhat paler gray under parts in the male sex.

After examining a very large series from Nicaragua to Panama I fully agree with M. A. Carriker that the characters separating the birds of the Atlantic and Caribbean slopes are too unstable to justify the recognition of more than one form in Central America.

N.Y., 9, p. 116, 1868—Barranca, Angostura, and San Mateo, Costa Rica; SALVIN, P.Z.S.Lond., 1867, p. 149—Santa Fé, Veragua; idem, l.c., 1870, p. 199—Calovevora, Veragua and Bugaba, Chiriquí; BOUCARD, l.c., 1878, p. 65—San Mateo, Costa Rica; RIDGWAY, Proc. U.S.Nat. Mus., 6, p. 385, 1884—Sucuyá, Nicaragua; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—San Mateo, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 344, 1888—part, spec. a—m, Choctum (Guatemala), Bugaba, Chiriquí, Calovevora, Santa Fé, Veragua, Panama, Lion Hill; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 127, pl. 43, fig. 1, 1890—part, Guatemala to Panama (excl. Colombia); CHERRIE, Proc. U.S. Nat. Mus., 14, p. 343, 1891—Costa Rica (crit.); RICHMOND, l.c., 16, p. 508, 1893—Greytown and Río Escondido, Nicaragua (nest and eggs descr.); RIDGWAY, l.c., 16, p. 611, 1893—Costa Rica (crit.); SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Punta de Sabana, Panama; BANGS, Auk, 18, p. 365, 1901—Divala, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 40, 1902—Boquete and Bogaba, Chiriquí; idem, Auk, 24, p. 303, 1907—Boruca, Paso Real, El Pozo del Río Grande, and Barranca de Puntarenas, Costa Rica.

*Pachyrhamphus polychropterus cinereiventris* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 829, 1907—part, Nicaragua to Panama (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 667, 1910—Costa Rica (crit., habits); STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 269, 1918—Gatún, Panama.

*Pachyrhamphus dorsalis* (not of SCLATER) RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 832, 1907—part, Panama Railroad.

*Pachyrhamphus polychropterus costaricensis* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 391, 1921—Panama to western Costa Rica (crit.).

*Pachyrhamphus polychropterus similis* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 392, 1921—eastern Costa Rica to Honduras (crit.).

Range: Guatemala (Choctum) and southward through Honduras, Nicaragua, and Costa Rica to Panama, east to the Canal Zone.

6: Nicaragua (San Emilio, Lake Nicaragua 1); Costa Rica (Buenos Aires 2; Turrialba 1; Térraba 1); Panama (Chiriquí 1).

**\**Pachyrhamphus polychropterus dorsalis* Sclater.<sup>1</sup> BOGOTÁ BECARD.**

*Pachyrhamphus dorsalis* SCLATER, Cat. Coll. Amer. Birds, p. 243, 1862—Bogotá? (the type examined in the British Museum is an undoubted Bogotá trade skin); RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 832, 1907—part, Bogotá, Río Cali, Río Barratero, and Castilla, Colombia (monog.); BANGS, Proc. Biol. Soc. Wash., 21, p. 157, 1908—"northwestern Colombia just south of Darién"—San Antonio, Western Andes; HELLMAYR, P.Z.S.Lond., 1911, p. 1143—Pueblo Rico, western Colombia, and Paramba, Ecuador (crit., female descr.); CHAPMAN, Bull. Amer. Mus.

<sup>1</sup>*Pachyrhamphus polychropterus dorsalis* SCLATER: Nearly allied to *P. p. cinereiventris*, but somewhat larger; under parts of adult male very much paler gray (without the slightest trace of blackish or whitish freckles); hind neck often with

N.H., 36, p. 493, 1917—San Antonio, Andes above Cali, Ricaurte, and Aguadita, above Fusugasugá, Colombia (crit.).

*Pachyrhamphus chapmani* CHUBB, Bull. Brit. Orn. Cl., 40, p. 74, 1920—Santa Elena, Antioquia.

*Pachyrhamphus cinereiventris* (not of SCLATER) SCLATER and SALVIN, P.Z.S. Lond., 1879, p. 518—Santa Elena, Antioquia; SCLATER, Cat. B. Brit. Mus., 14, p. 344, 1888—part, spec. q-v, Antioquia and Bogotá.

*Pachyrhamphus polychopterus dorsalis* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 392, 1921—western Colombia and Ecuador (monog.).

Range: Subtropical Zone of Colombia (Pueblo Rico, San Antonio, above Cali, Río Barratero, Castilla, and Ricaurte, Western Andes; Santa Elena, Central Andes; Aguadita, above Fusugasugá, western slope of Eastern Andes) and northwestern Ecuador (Paramba, prov. Esmeraldas).

2: Colombia (Bogotá 1; Castilla, Western Andes 1).

***Pachyrhamphus marginatus marginatus* (Lichtenstein). BLACK-CAPPED BECARD.**

*Todus marginatus* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 51, 1823—Bahia (type in Berlin Museum examined; =female).

*Pachyrhynchus swainsonii* JARDINE and SELBY, Illust. Orn., 2, Part 7, Adenda, p. [4], Dec., 1830—Brazil (descr. of female).

*Muscipeta marginata* WIED, Beitr. Naturg. Bras., 3, (2), p. 909, 1831—eastern Brazil (descr. of female).

*Pachyrynchus swainsonii* SWAINSON, Anim. Menag., p. 288, Dec., 1837—eastern Brazil (part, descr. of "male" =female).

*Pachyrynchus albifrons* SWAINSON, Anim. Menag., p. 289, Dec., 1837—Brazil (descr. of adult male).

*Bathmidurus atricapillus* (not *Lanius atricapillus* MERREM)<sup>1</sup> CABANIS, Arch. Naturg., 13, (1), p. 245, 1847 (synonymy).

*Psaris marginatus minor* KAUP, P.Z.S.Lond., 19, "1851," p. 48, Oct., 1852—no locality stated.

a gray collar separating the black of the pileum from that of the back. Wing 75-79, (female) 75; tail 57-60; bill 13½-14.

An adult male, collected by R. Micketta on April 9, 1899, at Paramba, alt. 3500 ft., Ecuador, in the collection of the Tring Museum, agrees with Colombian examples.

Material examined.—Colombia: Bogotá (including the type) 6; Santa Elena, Antioquia 1; Castilla 1; San Antonio 2; Pueblo Rico 1.—Ecuador: Paramba 1.

<sup>1</sup>*Lanius atricapillus* MERREM (Av. Rar. Icon., fasc. 2, p. 26, pl. 8, 1786—supposedly Surinam) appears to me unidentifiable. While obviously based on some species of *Pachyrhamphus*, both description and plate are very unsatisfactory and might just as well be referred to *P. marginatus nanus* as *P. polychopterus tristis*, and the name had better be dropped altogether.



*Bathmidurus marginatus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 451, 1856—part, Bahia.

*Pachyrhamphus marginatus* SCLATER, P.Z.S.Lond., 25, p. 77, 1857—part, Bahia (descr. of male and female).

*Pachyrhamphus atricapillus* PELZELN, Orn. Bras., 2, p. 121, 1868—part, Rio de Janeiro and Sapitiba, Rio (spec. examined); (?) REINHARDT, Videnskab. Medd. Naturhist. Foren., 1870, p. 322—Rio de Janeiro, and Lagôa Santa, Minas Geraes; FORBES, Ibis, 1881, p. 344—Macuca, Pernambuco; SCLATER, Cat. B. Brit. Mus., 14, p. 347, 1888—part, spec. q-v, Bahia, Brazil; ALLEN, Bull. Amer. Mus. N.H., 2, p. 238, 1889—southeastern Brazil; IHERING and IHERING, Cat. Faun. Braz., 1, p. 308, 1907—Bahia and Espirito Santo; (?) CHUBB, Ibis, 1910, p. 606—Sapucay, Paraguay.

*Pachyrhamphus marginatus marginatus* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 394, 1921—Bahia and São Sebastião, São Paulo (excl. Diamantina; monog.).

Range: Wooded region of eastern Brazil, from Pernambuco (Macuca) south to São Paulo (São Sebastião); (?) Paraguay (Sapucay).<sup>1</sup>

**\**Pachyrhamphus marginatus nanus* Bangs and Penard.<sup>2</sup> DWARF BLACK-CAPPED BECARD.**

*Pachyrhamphus marginatus nanus* BANGS and PENARD, Bull. Mus. Comp. Zool., 64, p. 395, 1921—Xeberos, Peruvian Amazon, Peru; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 342, 1929—Tury-assú, Maranhão.

*Pachyrhynchus marginatus* (not of LICHTENSTEIN) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 42, 1837—Yuracares, Bolivia (descr. of female; spec. in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 303, pl. 31, fig. 2, 1839—Yuracares.

*Bathmidurus marginatus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 451, 1856—part, Bolivia (ex d'Orbigny).

*Pachyrhamphus marginatus* SCLATER, P.Z.S.Lond., 25, p. 77, 1857—part, Bolivia, eastern Peru, and Río Napo; idem, l.c., 26, p. 71, 1858—Río Napo; BERLEPSCH, Nov. Zool., 15, p. 141, 1908—Oyapoc, French Guiana; HELLMAYR, l.c., 17, p. 313, 1910—Maroins, Rio Machados; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará and Ourém;

<sup>1</sup>Material examined.—Bahia (including the type) 9; Rio de Janeiro 2; Sapitiba, Rio 1.

<sup>2</sup>*Pachyrhamphus marginatus nanus* BANGS and PENARD: Similar to *P. m. marginatus*, but decidedly smaller. Wing 63-69 (against 68-76); tail 47-54 (against 53-58).

Material examined.—Venezuela: Caura Valley 8.—Brazil: Tury-assú, Maranhão 1; Rio Içanna [=Rio Isana] 1; Barcellos, Rio Negro 1; Marabitanas, Rio Negro 7; Maroins, Rio Machados 3.—Peru: Pebas 2.—Bolivia: Yuracares 1.

SNETHLAGE, Bol. Mus. Goeldi, 8, p. 350, 1914—Pará, Santa Izabel, Peixe Boi, Rio Guamá (Ourém), Rio Tocantins (Mazagão, Cametá), Rio Xingú (Forte Ambé), Rio Tapajóz (Boim, Itaituba, Goyana, Villa Braga), Rio Jamauchim (Santa Helena, Maloquinha), Rio Jary (Santo Antonio da Cachoeira), Obidos, Rio Jamundá (Faro), Maranhão; BEEBE, Zoologica (N.Y.), 2, p. 93, 1916—Utinga, Pará; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 253, 1916—Munduapo, Río Orinoco, Venezuela; HELLMAYR, Nov. Zool., 32, p. 16, 1925—Yuracares, Bolivia (crit.); SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Tury-assú, Maranhão; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Pará.

*Pachyrhamphus atricapillus* (not *Lanius atricapillus* MERREM) SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 751—Xeberos and Chyavetas, Peru; idem, l.c., p. 978—Pebas, Peru; idem, l.c., 1873, p. 284—Xeberos, Chyavetas, and Pebas, Peru; idem, l.c., 1879, p. 617—Yuracares, Bolivia (ex d'Orbigny); PELZELN, Orn. Bras., 2, p. 121, 1868—part, Borba (Rio Madeira), Marabitanas, Rio Içanna, and Barcellos, Rio Negro (spec. examined); LAYARD, Ibis, 1873, p. 384—Pará; TACZANOWSKI, Orn. Pér., 2, p. 365, 1884—Peruvian localities; SALVIN, Ibis, 1885, p. 302—Bartica Grove, Merumé Mts., and Camacusa, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 347, 1888—part, spec. a-p, San Esteban, "Caracas," Bartica Grove, Merumé Mts., Camacusa, Oyapoc, "Cayenne," Chamicuro, Sarayacu, and Río Napo; BERLEPSCH, Journ. Orn., 37, p. 303, 1889—Yurimaguas, Peru; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; (?) ALLEN, Bull. Amer. Mus. N. H., 5, p. 110, 1893—Chapada, Matto Grosso; GOODFELLOW, Ibis, 1901, p. 710—Archidona, eastern Ecuador; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 56, 1902—Munduapo, Río Orinoco, and Suapure and La Pricion, Caura; SNETHLAGE, Journ. Orn., 55, p. 291, 1907—Pará and Ourém, Rio Guamá; idem, l.c., 56, p. 505, 1908—Goyana and Itaituba, Rio Tapajóz; PENARD and PENARD Vog. Guyana, 2, p. 156, 1910—Surinam; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 493, 1917—La Morelia, Colombia; CHUBB, Birds Brit. Guiana, 2, p. 275, 1921—various localities.

Range: French, Dutch, and British Guiana; Venezuela (Caura-Orinoco region; Sierra de Carabobo and San Esteban, Carabobo); the whole of Amazonia from northern Maranhão west to the eastern slopes of the Andes in Colombia, Ecuador, Peru, and Bolivia.

1: Brazil (Tury-assú, Maranhão 1).

***Pachyrhamphus albogriseus albogriseus* Sclater. BLACK-AND-WHITE BECARD.**

*Pachyrhamphus albogriseus* SCLATER, P.Z.S.Lond., 25, p. 76, 1857—part, descr. of male only, Bogotá (type in British Museum examined); SCLATER and SALVIN, l.c., 1868, p. 168—Caracas, Venezuela; SCLATER, Cat. B. Brit. Mus., 14, p. 347, 1888—part, descr. of male and spec. f.l, Bogotá, Mérida; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 128, 1890—part, Colombia, Venezuela.

*Pachyrhamphus albogriseus albogriseus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 836, 1907—part, Bogotá, Colombia, and Mérida and Caracas, Venezuela; HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, pp. 90, 91, 1912—Cumbre de Valencia, Carabobo, Venezuela (crit., range).

*Pachyrhamphus similis* (not of CHERRIE), SALVIN, Nov. Zool., 2, p. 13, 1895—part, Mérida, Venezuela.

Range: North coast mountains of Venezuela, from Sucre to Caracas and Mérida, and west into the Eastern Andes of Colombia (Bogotá).<sup>1</sup>

***Pachyrhamphus albogriseus ornatus* Cherrie.<sup>2</sup> ARCÉ'S BECARD.**

*Pachyrhamphus ornatus* CHERRIE, Proc. U.S.Nat. Mus., 14, p. 338, 1891—Barranca, Costa Rica (=female); RIDGWAY, l.c., 16, p. 611, 1893—San José, Costa Rica (crit.); idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 842, 1907—Costa Rica (Barranca, San José) and Colombia (Valparaiso, Santa Marta region).

*Pachyrhamphus albogriseus* (not of SCLATER) SALVIN, P.Z.S.Lond., 1870, p. 199—Calovevora (Veragua) and Bugaba (Chiriquí); SCLATER, Cat. B. Brit. Mus., 14, p. 347, 1888—part, spec. a-c, Nicaragua, Calovevora, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 128, pl. 43, fig. 2 (male),<sup>3</sup> 1890—part, Corinto (Nicaragua), Bugaba and Calovevora (descr. of male only).

*Pachyrhamphus cinereiventris* (not of SCLATER) ALLEN, Bull. Amer. Mus. N.H., 13, p. 154, 1900—part, Valparaiso, Santa Marta.

*Pachyrhamphus albogriseus albogriseus* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 836, 1907—part, Nicaragua (Corinto), Panama (Calovevora, Chitrá, Bugaba), and Colombia (Santa Marta); CARRIKER, Ann. Carnegie Mus., 6, p. 666, 1910—Bebedero, Costa Rica (crit.).

*Pachyrhamphus albogriseus ornatus* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 92, 1912—Boquete, Chiriquí (crit., range); TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 324, 1922—Valparaiso, Santa Marta region (crit.).

Range: Western Nicaragua (Corinto), Costa Rica, western Panama (Bugaba, Boquete, Chitrá, Chiriquí; Calovevora, Veraguas), and northern Colombia (Valparaiso, Santa Marta region).

<sup>1</sup>The type, while identical with Venezuelan males in coloration, is somewhat larger (wing 77, against 75; tail 62, against 59-60). The characters of both sexes have been fully set forth by HELLMAYR and SEILERN (l.c., p. 91).

Material examined.—Colombia: Bogotá (the type) 1.—Venezuela: Los Palmares, Bermúdez (now Sucre) 2; Galipán, Cerro del Avila, Distrito Federal 3; Cumbre de Valencia, Carabobo 8; Río Albarregas, Mérida 1.

<sup>2</sup>*Pachyrhamphus albogriseus ornatus* CHERRIE: Adult male similar to *P. a. albogriseus*, but central rectrices grayish for the two basal thirds of their length; female with light markings on wings and tail much paler buffy yellow; pileum darker; under parts more greenish. Wing 75, (female) 72; tail 55-58; bill 13.

Material examined.—Panama: Boquete 2; Calovevora 1.

<sup>3</sup>The female figured on the same plate (fig. 3) belongs to some other species.



**Pachyramphus albogriseus subsp. ECUADORIAN BECARD.**

*Callopsaris albogriseus* (not of SCLATER) TACZANOWSKI, P.Z.S.Lond., 1877, p. 327—Lechugal, Río Zurumilla, prov. Tumbes, Peru.

*Pachyramphus albogriseus* BERLEPSCH and TACZANOWSKI, P.Z.S.Lond., 1883, p. 559—Chimbo; idem, l.c., 1885, p. 93—Mapoto, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 361, 1884—part, Lechugal; HARTERT, Nov. Zool., 5, p. 489, 1898—Chimbo; GOODFELLOW, Ibis, 1901, p. 710—Archidona (spec. examined).<sup>1</sup>

*Pachyramphus similis* (not of SALVIN?) SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 16, 1899—Río Peripa, Ecuador.

*Pachyramphus albogriseus similis* HARTERT, Nov. Zool., 9, p. 609, 1902—Chimbo, San Javier (Esmeraldas), and Archidona (spec. examined).

*Pachyramphus albogriseus salvini* (not of RICHMOND?) CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 543, 1926—Mindo, Chongoncito, Daule, Guayaquil, Puna Island, Punta Santa Ana, Zamora, below Oyacachi, and below San José, Ecuador.

Range: Tropical Zone of Ecuador and extreme northwestern Peru (Lechugal, Río Zurumilla, prov. Tumbes).<sup>2</sup>

**\*Pachyramphus albogriseus salvini Richmond.<sup>3</sup> SALVIN'S BECARD.**

*Pachyramphus similis* (not of CHERRIE, 1891) SALVIN, Nov. Zool., 2, p. 13, 1895—part, Chusgon (type), Viña, Succha, and Malca (Huamachuco), dept. Cajamarca, Peru.

*Pachyramphus salvini* RICHMOND, Auk, 16, p. 186, 1899—new name for *Pachyramphus similis* SALVIN, preoccupied.

*Pachyramphus albogriseus salvini* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 92, 1912—northern Peru (crit., char.).

*Pachyramphus albogriseus* (not of SCLATER) TACZANOWSKI, P.Z.S.Lond., 1879, p. 236—Tambillo and Guajango; idem, l.c., 1880, p. 203—Callcate; idem, Orn. Pér., 2, p. 361, 1884—part, Tambillo, Guajango, Callcate.

<sup>1</sup>The male brought back by Goodfellow, now in the Tring Museum, is wrongly labeled "Archidona, Ecuador, April, 1899." It is one of O. T. Baron's skins of *P. a. salvini* from northern Peru, as its unmistakable "make" clearly shows.

<sup>2</sup>Owing to lack of sufficient material, I am unable to determine to what form birds from Ecuador should be referred. A single adult male from Chimbo is much like *P. a. ornatus*, but smaller, with shorter white tips to the rectrices, and lacks the black loreal spot; while a female from San Javier, prov. Esmeraldas, differs only by its smaller dimensions. In size of bill, both these specimens are intermediate between *P. a. ornatus* and *P. a. salvini*. Chapman refers the Ecuadorian form to *P. a. salvini*, but apparently had no Peruvian material for comparison. In opposition to his statement, the San Javier female has the throat yellow, not white.

Wing (male) 68, (female) 65; tail 51, (female) 54; bill 13.

<sup>3</sup>*Pachyramphus albogriseus salvini* RICHMOND: Much like *P. a. ornatus*, but apical spots of median upper wing coverts much smaller, and bill shorter as well as slenderer; back of adult female somewhat duller, more of a grayish olive tone. Wing 73-75, (female) 69-72; tail 57-63, (female) 55-60; bill 10 $\frac{1}{4}$ -12.

Material examined.—Peru: Viña, Huamachuco 4; Chusgon 1; Malca 2; Poco Tambo 1; Guajango 1.

Range: Northern Peru, in depts. of Cajamarca and San Martín (Chusgon, Viña, Succha, and Malca, near Huamachuco; Poco Tambo, east of Uchco; Tambillo; Callacate; Guajango, Río Marañón).

1: Peru (Poco Tambo, east of Uchco 1).

**\*Pachyramphus major australis** *Miller and Griscom*.<sup>1</sup> NICARAGUAN BECARD.

*Pachyramphus major australis* MILLER and GRISCOM, Amer. Mus. Novit., 159, p. 3, 1925—San Rafael del Norte, Nicaragua.

*Pachyramphus major* (not of CABANIS) SCLATER and SALVIN, Ibis, 1860, p. 36—Cobán, Guatemala; SCLATER, Cat. B. Brit. Mus., 14, p. 346, 1888—part, spec. i-q, Choctum, Cobán, Vera Paz, Medio Monte, Calderas, and Dueñas, Guatemala; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 127, 1890—part, Guatemala.

*Pachyramphus major major* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 833, 1907—part, Guatemala.

Range: Guatemala, Honduras, and eastern Nicaragua (San Rafael del Norte; Arenal district, Matagalpa).

3: Guatemala (Petén 1, unspecified 2).

**Pachyramphus major**<sup>2</sup> *major* (Cabanis). MEXICAN BECARD.

*Bathmidurus major* CABANIS, Arch. Naturg., 13, (1), p. 246, 1847—Xalapa, Vera Cruz, Mexico (type in Heine Collection; descr. of female); BAIRD, Rep. Pacific R. R. Surv., 9, p. 165, 1858—Boquillo, Nuevo León; idem, Birds N. America, p. 166, pl. 47, fig. 2 (female), 1860—Boquillo; idem, Rep. U. S. and Mex. Bound. Surv., 2, Part 2, p. 7, pl. 19, fig. 2, 1859—Boquillo; CABANIS and HEINE, Mus. Hein., 2, p. 89, 1859—Jalapa; SUMICHRIST, Mem. Boston Soc. N.H., 1, p. 558, 1869—Vera Cruz.

*Pachyramphus marginatus major* KAUP, P.Z.S.Lond., 19, "1851," p. 48, Oct., 1852 (diag.).

<sup>1</sup>*Pachyramphus major australis* MILLER and GRISCOM: "Resembling typical *P. m. major* (CABANIS) of eastern Mexico, but adult male with interscapular region with much less black, and slightly paler below, in these respects intermediate between typical *major* and *P. m. itzensis* of Yucatán; female much darker than in *major*, cinnamon-rufous above rather than light buff-tawny, the yellow tinge beneath more marked; size slightly smaller than *major*, larger than *itzensis*." (MILLER and GRISCOM, Amer. Mus. Novit., 159, p. 3, 1925).

In the absence of typical *major* from eastern Mexico I cannot add anything to this description. An adult female from Volcán de Puca, Honduras, collected by E. Wittkugel on March 7, 1889, I found to be identical with others from Guatemala.

<sup>2</sup>*Pachyramphus major* is possibly conspecific with *P. albogriseus*. In view of the very differently colored female, however, it does not seem desirable to reduce its rank, until we acquire a better knowledge of its range in Nicaragua, where it is expected to meet *P. albogriseus ornatus*.

*Pachyrhamphus marginatus* (?) (not *Todus marginatus* LICHTENSTEIN)  
SCLATER, P.Z.S.Lond., 24, p. 298, 1856—Cordova, Vera Cruz.

*Pachyrhamphus major* SCLATER, P.Z.S.Lond., 25, p. 78, 1857—Jalapa, Mexico (descr. of male and female); idem, l.c., p. 204, 1857—Jalapa; idem, l.c., 26, p. 97, 1858—southern Mexico; idem, l.c., 27, p. 366, 1859—Jalapa; idem, l.c., 1864, p. 176—near Mexico City; idem, Cat. B. Brit. Mus., 14, p. 346, 1888—part, spec. a-f, near Mexico City and Jalapa, Mexico; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 127, 1890—part, Mexico City, Sierra Madre above Ciudad Victoria, Jalapa, and Huatusco, Mexico; CHAPMAN, Bull. Amer. Mus. N.H., 10, p. 32, 1898—Jalapa, Vera Cruz.

*Pachyrhamphus major major* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 833, 1907—part, eastern Mexico (monog.); BANGS and PETERS, Bull. Mus. Comp. Zool., 67, p. 478, 1927—Presidio, Vera Cruz.

Range: Eastern Mexico, in states of Nuevo León, Tamaulipas, Vera Cruz, Puebla, Mexico, and Oaxaca.

***Pachyrhamphus major uropygialis* Nelson. SINALOA BECARD.**

*Pachyrhamphus major uropygialis* NELSON, Auk, 16, p. 28, 1899—Plomosas, Sinaloa; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 836, 1907—western Mexico (monog.).

*Pachyrhamphus major* (not of CABANIS) SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 127, 1890—part, Amula, Guerrero.

Range: Western Mexico, in states of Sinaloa (Plomosas) and Guerrero (Amula).

**\**Pachyrhamphus major itzensis* Nelson. YUCATÁN BECARD.**

*Pachyrhamphus major itzensis* NELSON, Proc. Biol. Soc. Wash., 14, p. 173, 1901—Chichen-Itza, Yucatán; COLE, Bull. Mus. Comp. Zool., 50, p. 134, 1906—Chichen-Itza; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 836, 1907—Yucatán (monog.); BANGS and PECK, Proc. Biol. Soc. Wash., 21, p. 44, 1908—Toledo District, British Honduras (crit.); GRISCOM, Amer. Mus. Novit., 235, p. 15, 1926—Chun yaxche, Quintana Roo.

*Pachyrhamphus major* (not of CABANIS) BOUCARD, P.Z.S.Lond., 1883, p. 449—Izalam, Tizimín, and Río Lagartos, Yucatán; SCLATER, Cat. B. Brit. Mus., 14, p. 346, 1888—part, spec. g, h, northern Yucatán; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 127, 1890—part, Peto and Buctzotz, Yucatán.

Range: Yucatán (Chichen-Itza; Calatmul; Izalam; Tizimín; Río Lagartos; Peto; Buctzotz), Quintana Roo (Chun yaxche), and British Honduras (Toledo District).

1: Yucatán (Izalam 1).



Genus **PLATYPSARIS** Sclater.<sup>1</sup>

*Platypsaris* SCLATER,<sup>2</sup> P.Z.S.Lond., 25, p. 72, 1857—type by subs. desig. (SCLATER, Cat. B. Brit. Mus., 14, p. 333, 1888) *Pachyrhynchus aglaiae* LAFRESNAYE.

*Pachyrhamphus* (not of CABANIS, 1847) KAUP, P.Z.S.Lond., 19, "1851," p. 45, Oct., 1852—for *Lanius validus* LICHT. [= *Tityra rufa* VIEILLOT], *Pachyrhamphus nigrescens* CAB., *Pachyrhynchus pectoralis* SWAINSON [= *Querula minor* LESSON], and *Pachyrhynchus aglaiae* LAFRESNAYE; no genotype specified.

*Hadrostomus* CABANIS and HEINE, Mus. Hein., 2, p. 84, 1859—new name for *Pachyrhamphus* KAUP; type by subs. desig. (SCLATER, Cat. B. Brit. Mus., 14, p. 333, 1888) *Tityra atricapilla* VIEILLOT = *Tityra rufa* VIEILLOT.

**\*Platypsaris rufus rufus** (Vieillot). CRESTED BECARD.

*Tityra rufa* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 3, p. 347, 1816—based on Azara, No. 208, Paraguay; =female.

*Tityra atricapilla* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 3, p. 347, 1816—based on Azara, No. 209, Paraguay; =immature male.

*Lanius validus* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 50, 1823—São Paulo (descr. of adult and immature male).

*Pachyrhynchus cinerascens* SPIX, Av. Bras., 2, p. 34, pl. 46, fig. 1, 1825—no locality stated (type lost; =immature male).

*Psaris cristatus* SWAINSON, Zool. Journ., 2, No. 7, p. 355, Oct., 1825—southern part of Brazil (=adult male); idem, Zool. Illust., (2nd ser.), 1, Part 9, pl. 41, 1830—"from the mining provinces of Brazil" (=adult male).

*Tityra pileata* JARDINE and SELBY, Illust. Ornith., 1, Part 2, pl. 17, June, 1827—South America (=adult female).

*Psaris strigatus* SWAINSON, Anim. Menag., p. 287, Dec., 1837—Brazil (descr. of young male).

*Pachyrhynchus megacephalus* SWAINSON, Anim. Menag., p. 287, Dec., 1837—Brazil (descr. of immature male).

*Psaris atricapillus* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 42, 1837—Chiquitos, Bolivia (spec. in Paris Museum examined).

*Psaris roseicollis* D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 302, 1839—part, descr. of "young male," Chiquitos, Bolivia.

*Psaris affinis* LESSON, Rev. Zool., 3, p. 354, 1840—Brazil (descr. of male).

*Psaris validus* KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852 (crit.).

*Pachyrhamphus validus* CABANIS, Arch. Naturg., 13, (1), p. 240, 1847—Brazil (synonymy); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 455, 1856

<sup>1</sup>This genus is barely separable from *Pachyrhamphus* GRAY.

<sup>2</sup>*Platypsaris* BONAPARTE (Ann. Sci. Nat., (4), Zool., 1, p. 134, 1854) is a nomen nudum. GRAY (Cat. Gen. Subgen. Birds, p. 146, 1855) quotes for "*Platypsaris* BP. 1854" as type "*Psaris latirostris*? PR. B.," but the question mark makes it doubtful whether this action constitutes a valid designation under the rules.

—Sete Lagôas, Minas Geraes; SCLATER, P.Z.S.Lond., 25, p. 72, 1857—São Paulo (monog.).

"*Pachyramphus validus* seu *leucoptilon* (LICHT.)" (sic) DES MURS in CASTELNAU, Expéd. Amér. Sud, Ois., p. 54, 1856—Brazil (descr. of female).

*Hadrostomus atricapillus* CABANIS and HEINE, Mus. Hein., 2, p. 84, 1859—Brazil (synonymy); PELZELN, Orn. Bras., 2, p. 120, 1868—part, Rio de Janeiro, Sapitiba, Taipa, Mattodentro, Goyaba, Ypanemá (São Paulo), Curytiba and Castro (Paraná), Rio dos Piloens, Goyaz (spec. examined); BERLEPSCH, Journ. Orn., 35, p. 13, 1887—Lambaré, Paraguay; SCLATER, Cat. B. Brit. Mus., 14, p. 333, 1888—Bahia and "Pelotas, Rio Grande do Sul," Brazil; ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Chapada, Matto Grosso; SALVADORI, Boll. Mus. Zool. Torino, 10, No. 208, p. 11, 1895—Colonia Risso, Paraguay; IHERING, Rev. Mus. Paul., 3, p. 211, 1899—Piquete and Iguapé, São Paulo; REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 70, 1910; p. 153, 1925—Pedrinha, Piahy.

*Hadrostomus rufus* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 669, 1906 (crit.); IHERING and IHERING, Cat. Faun. Braz., 1, p. 306, 1907—Piquete, Iguapé, Ubatuba, Barretos, and Itapira (São Paulo), Bahia, and Rio Doce, Espírito Santo; LILLO, Apunt. Hist. Nat., 1, p. 42, 1909—Ocampo, Santa Fé; CHUBB, Ibis, 1910, p. 602—Sapucay, Paraguay.

*Hadrostomus rufa rufa* HARTERT and VENTURI, Nov. Zool., 16, p. 204, 1909—Ocampo and Mocovi, Santa Fé.

*Platypteryx rufus* DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 310, 1910—Ocampo and Mocovi; idem, Bol. Soc. Physis, 1, p. 348, 1914—same localities.

*Platypteryx atricapillus* GRANT, Ibis, 1911, p. 125—Cabo Emma, Paraguay.

*Platypteryx rufus rufus* DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 320, 1912—San Rafael, Paraguay; HELLMAYR, Nov. Zool., 32, p. 15, 1925—Chiquitos, Bolivia (crit.); SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 180, 1926—Marechal Mallet and Rio Claro, Paraná; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 339, 1929—Ibiapaba and Deserto, Piahy and Juá, Ceará.

Range: Campo region of Brazil, from Santa Catharina, Paraná, and Matto Grosso north to Ceará and Piahy, and adjacent sections of Paraguay, Argentina (prov. of Santa Fé), and eastern Bolivia (Chiquitos).<sup>1</sup>

<sup>1</sup>I cannot make out *Hadrostomus atricapillus surinamensis* PENARD and PENARD (Vog. Guyana, 2, p. 152, 1910—Surinam) which, the authors state, is apparently identical with the Brazilian bird. The only species seen from the Guianas is the pink-chested *P. minor*, and I strongly doubt the occurrence of *P. r. rufus* in Surinam.

A single adult male from Chiquitos, Bolivia agrees with others from Brazil.

Material examined.—Piahy: Deserto 3, Ibiapaba 5, Pedrinha, near Parna-guá 1.—Ceará: Juá, near Iguatú 1.—Bahia 3.—Goyaz: Rio dos Piloens 1, Amaro-leite 2.—Rio de Janeiro: Sapitiba 1, Rio 1.—São Paulo: Iguapé 2, Mattodentro 2, Ipanemá 2, Goyaba 1, Taipa 1.—Paraná: Castro 1, Curytiba 3.—Bolivia: Chiquitos 1.

10: Brazil (Bahia 1; Juá, near Iguatú, Ceará 1; Deserto, Piahy 3; Ibiapaba, Piahy 5).

**\*Platypsaris rufus audax (Cabanis).<sup>1</sup> BOLD BECARD.**

*Hadrostomus audax* CABANIS, Journ. Orn., 21, p. 68, 1873—Monterico, dept. Ayacucho, Peru; TACZANOWSKI, P.Z.S.Lond., 1874, p. 540—Monterico; idem, Orn. Pér., 2, p. 356, 1884—Monterico; BERLEPSCH and STOLZMANN, Orn., 13, p. 90, 1906—Casinchihua, Urubamba, dept. Cuzco, Peru.

*Platypsaris atricapillus* (not *Tityra atricapilla* VIEILLOT) LILLO, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 188, 1902—Tucumán, Tafi Viejo, and La Hoyada, Argentina; BAER, Orn., 12, p. 221, 1904—La Criolla, Tucumán.

*Hadrostomus rufus audax* HARTERT and VENTURI, Nov. Zool., 16, p. 205, 1909—La Hoyada and Las Cuchillas, Tucumán, Argentina.

*Platypsaris audax* LILLO, Rev. Letr. Cienc. Soc., 3, p. 51, 1905—Tucumán, Tafi Viejo, and La Hoyada; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 310, 1910—La Hoyada; CHAPMAN, Bull. U.S.Nat. Mus., 117, p. 99, 1921—midway between Torontoy and San Miguel Bridge, Urubamba, Peru.

*Hadrostomus rufus audax* GIACOMELLI, El Hornero, 3, p. 72, 1923—Santa Cruz, Río Saladillo, La Rioja.

Range: Tropical Zone of southern Peru (Monterico, dept. Ayacucho; Casinchihua and between Torontoy and San Miguel Bridge, Urubamba, dept. Cuzco), central Bolivia (Samaipata, western Santa Cruz), and northwestern Argentina (in prov. of Salta Tucumán, and La Rioja).

1: Argentina (Las Cuchillas, Tucumán 1).

**\*Platypsaris homochrous<sup>2</sup> homochrous (Sclater). ONE-COLORED BECARD.**

*Pachyrhamphus homochrous* SCLATER, P.Z.S.Lond., 27, p. 142, 1859—Pallatanga, Ecuador (descr. of male and female); idem, l.c., 28, p. 279, 1860—

<sup>1</sup>*Platypsaris rufus audax* (CABANIS): Adult male similar to *P. r. rufus*, but back much darker, blackish rather than sooty gray, without any buffy tinge on rump and tail coverts; under parts dingy grayish instead of deep buff, only the under tail coverts slightly washed with dull buffy; axillars and under wing coverts much paler, buffy grayish rather than deep buff, approaching ochraceous buff; female not distinguishable from that of its Brazilian ally. Wing 98-104, (female) 96-98; tail 67-75.

Specimens from Samaipata, Bolivia, agree with a series from western Argentina. No Peruvian material is available for comparison.

Material examined.—Argentina, prov. Tucumán: Las Cuchillas 3, La Hoyada 2, Tucumán 2; Río Bermejo, Salta 1.—Bolivia: Samaipata, alt. 1500 meters, 4.

<sup>2</sup>*Platypsaris homochrous* is of doubtful affinity. The adult male has a very short, narrow second primary, while the female may be recognized from every other species by having the whole pileum tawny rufous like the back.



Babahoyo; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 473, 1862—Lion Hill, Panama; SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 362—Panama Railroad (ex LAWRENCE).

*Hadrostomus homochrous* SCLATER, Cat. Coll. Amer. Birds, p. 240, 1862—Pallatanga and Babahoyo, Ecuador; TACZANOWSKI, P.Z.S.Lond., 1877, p. 326—Lechugal, Tumbes, Peru; (?) SCLATER and SALVIN, l.c., 1879, p. 517, pl. 42, fig. 12—Remedios, Antioquia, Colombia (nest and eggs described);<sup>1</sup> TACZANOWSKI and BERLEPSCH, l.c., 1885, p. 93—Yaguachi, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 357, 1884—Lechugal, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 334, pl. 24, 1888—part, spec. a-l,n, Pallatanga, Babahoyo, Santa Rita, "Monji," Balzar, "Sarayacu," Lechugal, Panama; HARTERT, Nov. Zool., 5, p. 489, 1898—Chimbo, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 16, 1899—Río Peripa and Vinces, Ecuador; GOODFELLOW, Ibis, 1901, p. 710—Santo Domingo and Guanacillo, Ecuador.

*Platypsaris homochrous* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 859, 1907—part, (?) eastern Panama, (?) Remedios (Antioquia), western Ecuador, and Lechugal, northern Peru (monog.); HELLMAYR, P.Z.S.Lond., 1911, p. 1143—Nóvita, Condoto, and Tadó, Pacific Colombia.

*Platypsaris homochrous homochrous* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 490, 1917—Nóvita, Colombia; idem, l.c., 55, p. 540, 1926—Esmeraldas, Manaví, Daule, Durán, Bucay, Santa Rosa, Zaruma, and Alamor, western Ecuador.

Range: Tropical Zone of (?) eastern Panama (Railroad line), western Colombia, and western Ecuador south to extreme north-western Peru (Lechugal, Río Zurumilla, dept. Tumbes).<sup>2</sup>

2: Ecuador (Pambílar, prov. Esmeraldas 1; Milagro, prov. Guayas 1).

***Platypsaris homochrous canescens* Chapman.<sup>3</sup> SANTA MARTA ONE-COLORED BECARD.**

*Platypsaris homochrous canescens* CHAPMAN, Bull. Amer. Mus. N.H., 31, p. 155, 1912—"Cagualito" = Cacagualito, Santa Marta Mts., Colombia;

<sup>1</sup>This reference may pertain to *P. h. canescens*.

<sup>2</sup>Specimens from Pacific Colombia are identical with others from Ecuador. No material from Panama is available. According to CHAPMAN (Bull. Amer. Mus. N.H., 31, p. 155, 1912), a single adult male examined by him probably represents a separate race.

Material examined.—Ecuador: Vinces 2; Chimbo 2; Milagro 1; Pambílar, Esmeraldas 3; Yaguachi 1.—Colombia: Potedo, Chocó 2; Andagoya, Chocó 2; Quibdó, Río Atrato 3; Nóvita 3; Condoto 1; Tadó 1; Murindo, Antioquia 1.

<sup>3</sup>*Platypsaris homochrous canescens* CHAPMAN: Similar to *P. h. homochrous*, but adult male decidedly paler gray underneath, and the back slate gray, contrasting with the black of the pileum. Wing 85-88; tail 62-64.

Two males from Jaraquiel, dept. Bolívar, are somewhat darker above, thereby approaching certain worn specimens of typical *homochrous*.

Material examined.—Fundación 5; Cacagualito 1; Mamatoco 2; Dibulla 1; Don Diego 2; Calamar, lower Magdalena 2; Gamarra, Magdalena 1; Jaraquiel, Bolívar 3.

TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 324, 1922—Bonda, Cacagualito, Mamatoco, Fundación, Don Diego, and Dibulla, Santa Marta region (spec. examined).

*Hadrostomus homochrous* SCLATER, Cat. B. Brit. Mus., 14, p. 334, 1888—part, spec. m, Santa Marta; ALLEN, Bull. Amer. Mus. N.H., 13, p. 154, 1900—Cacagualito and Bonda.

*Platypsaris homochrous* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 859, 1907—part, Santa Marta, Bonda, and Cacagualito.

Range: Northern Colombia, in depts. of Magdalena (Gamarra, Río Magdalena; Santa Marta district) and Bolívar (Calamar, Río Magdalena; Jaraquiel).<sup>1</sup>

**Platypsaris minor (Lesson). LESSER BECARD.**

*Querula minor* LESSON, Traité d'Orn., livr. 5, p. 363, end of 1830—Cayenne (descr. of immature male); PUCHERAN, Arch. Mus. Hist. Nat. Paris, 7, livr. 3, p. 366, 1855 (crit.).

*Psaris roseicollis* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 42, 1837—Guarayos and Yuracares, Bolivia (type in Paris Museum examined; =adult male); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 302, 1839—part, descr. of adult male, Yuracares and Guarayos; JARDINE and SELBY, Illust. Orn., n. ser., Part 5, pl. 28 (=adult male), March, 1839—locality unknown.

*Pachyrhynchus pectoralis* SWAINSON, Anim. Menag., p. 288, Dec., 1837—Cayenne (descr. of immature male).

*Pachyrhynchus atricilloides* DES MURS in CASTELNAU, Expéd. Amér. Sud, Ois., p. 55, in text, June, 1856—Cavallo-Coche, Peru (descr. of female).

*Pachyrhynchus minor* CABANIS, Arch. Naturg., 13, (1), p. 241, 1847—part, Bolivia.

*Psaris pectoralis* KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852 (diag.).

*Pachyrhynchus pectoralis* SCLATER, P.Z.S.Lond., 25, p. 18, 1857—Bogotá; idem, l.c., 25, p. 73, 1857—Cayenne and Bogotá (crit.).

*Pachyrhynchus roseicollis* SCLATER, P.Z.S.Lond., 25, p. 73, 1857—Bolivia (crit.).

*Hadrostomus roseicollis* CABANIS and HEINE, Mus. Hein., 2, p. 85, 1859—Bolivia (ex D'ORBIGNY).

*Hadrostomus minor* CABANIS and HEINE, Mus. Hein., 2, p. 85, 1859—Cayenne and Colombia; SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 190—upper Ucayali, Peru; idem, l.c., 1867, p. 579—Pará; PELZELN, Orn. Bras.,

<sup>1</sup>Two specimens from western Venezuela (state of Zulía) in Field Museum cannot properly be referred to any known form. The adult male, taken by H. T. Raven on October 20, 1910, at Catatumbo, is very nearly as dark above as *P. h. homochrous* from the Pacific coast, while the under parts are even a shade deeper gray. An immature male (with rufous wings and tail), secured by W. H. Osgood and H. B. Conover on March 1, 1920, on the Río Cogollo, eastern base of the Sierra de Perijá, however, can be closely matched by a specimen (in corresponding plumage) of *P. h. canescens* from Mamatoco, Santa Marta.

Additional material is required to establish the status of the Venezuelan race.

2, p. 120, 1868—Engenho do Cap. Gama, western Matto Grosso; SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 284—upper Ucayali, Peru; idem, l.c., 1879, p. 617—Yuracares and Guarayos, Bolivia; TACZANOWSKI, l.c., 1882, p. 23—Yurimaguas, Peru; idem, Orn. Pér., 2, p. 358, 1884—Peruvian localities; SALVIN, Ibis, 1885, p. 302—Bartica Grove and Camacusa, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 337, 1888—Cayenne, Camacusa, Bartica Grove, Pará, Chamicuros, Iquitos, upper Ucayali, Samiria, Sarayacu (Ecuador), Bogotá; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; GOODFELLOW, Ibis, 1901, p. 710—Archidona, Ecuador; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 56, 1902—Suapure, Caura, Venezuela; IHERING and IHERING, Cat. Faun. Braz., 1, p. 307, 1907—range; HELLMAYR, Nov. Zool., 14, p. 51, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 313, 1910—Calama and Las Onças, Manicoré, Rio Madeira; BERLEPSCH, l.c., 15, p. 140, 1908—Cayenne; SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Pará; idem, l.c., 56, p. 13, 1908—Cachoeira, Bom Lugar, and Ponto Alegre, Rio Purús; idem, l.c., p. 529, 1908—Arumatheua, Rio Tocantins; PENARD and PENARD, Vog. Guyana, 2, p. 152, 1910—Surinam.

*Hadrostomus atricapillus* (not *Tityra atricapilla* VIEILLOT) PELZELN, Orn. Bras., 2, p. 120, 1868—part, Pará (spec. examined); SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Pará (one female).

*Platyptaris rufus* (not *Tityra rufa* VIEILLOT) HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará (crit.).

*Platyptaris minor* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 33, 90, 1912—Ipitinga and Pará, Pará; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 349, 1914—Pará, Providencia, Peixe-Boi, Rio Tocantins (Baião, Arumatheua), Rio Tapajóz (Villa Braga, Pimental), Rio Purús (Cachoeira, Bom Lugar, and Ponto Alegre); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 251, 1916—Caura River, Venezuela; BEEBE, Zoologica (N.Y.), 2, p. 93, 1916—Utinga, Pará; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 490, 1917—La Morelia and Florencia, Caquetá, Colombia; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 70, 1918—Lelydorp, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 269, 1921—various localities; HELLMAYR, Nov. Zool., 32, p. 16, 1925—Guarayos, Bolivia (note on d'Orbigny's type); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 540, 1926—Rio Suno, Ecuador; SNETHLAGE, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 63, 1926—Tury-assú, Maranhão; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Pará.

Range: The whole Guianan-Amazonian forest region from northern Maranhão (Tury-assú), the estuary of the Amazon, and French Guiana west to the eastern slope of the Andes in Colombia, Ecuador, and Peru, south to northern Bolivia (Yuracares; Guarayos; Río Yapacani and Buenavista, dept. Santa Cruz) and western Matto Grosso (Engenho do Gama, Rio Guaporé).<sup>1</sup>

<sup>1</sup>There is no racial variation in this widespread species, except that males from south of the Amazon are on the average rather paler, more grayish. Females exhibit a wide amount of individual variation in color. The extremes are represented by a specimen from Pará (Carnegie Museum, No. 44093) with mainly



\**Platypsaris aglaiae aglaiae* (Lafresnaye). ROSE-THROATED BECARD.

*Pachyrhynchus aglaiae* LAFRESNAYE, Rev. Zool., 2, p. 98, 1839—Mexico.<sup>1</sup>

*Platypsaris affinis* (not *Psaris affinis* LESSON) ELLIOT, Ibis, 1, p. 394, pl. 13, 1859—Mexico; SCLATER, P.Z.S.Lond., 27, p. 366, 1859—Jalapa (crit.).

*Pachyrhamphus minor* (not *Querula minor* LESSON) CABANIS, Arch. Naturg., 13, (1), p. 241, 1847—part, descr. of female, Valle-Real, Vera Cruz, Mexico.

*Pachyrhamphus aglaiae* SCLATER, P.Z.S.Lond., 25, p. 74, 1857—part, Jalapa (monog.); idem, l.c., 27, p. 366, 1859—Jalapa, Vera Cruz (crit.); BAIRD, Rep. Pacific R.R. Surv., 9, p. 164, 1858—San Diego, Nuevo León; idem, Birds N. America, p. 164, pl. 47, fig. 1, 1860—San Diego.

*Platypsaris aglaiae* SUMICHRAST, Mem. Boston Soc. N.H., 1, p. 558, 1869—part, alpine region of Vera Cruz; RICHMOND, Proc. U.S.Nat. Mus., 18, p. 629, 1896—Altamira, Tamaulipas; CHAPMAN, Bull. Amer. Mus. N.H., 10, p. 31, 1898—Jalapa, Vera Cruz (habits, nest descr.); NELSON, North American Fauna, 14, p. 47, 1899—range (part).

*Hadrostromus aglaiae* (?) SCLATER, P.Z.S.Lond., 1864, p. 176—city of Mexico; FERRARI-PEREZ, Proc. U.S.Nat. Mus., 9, p. 156, 1886—part, Rancho del Ahuehuete, Puebla, and Jalapa, Vera Cruz; SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—part, spec. c-e, Jalapa; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, localities from eastern Mexico.

*Platypsaris aglaiae aglaiae* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 850, 1907—northeastern Mexico, from Nuevo León, northern and western Tamaulipas, and San Luís Potosí to highlands of Vera Cruz and Puebla (monog., full bibliography); PHILLIPS, Auk, 28, p. 78, 1911—Galindo, Río Santa, Altamira, Río Martínez, Santa Leonor, and Río Cruz, Tamaulipas.

Range: Northeastern Mexico, from states of Nuevo León, Tamaulipas, and San Luís Potosí to highlands of Vera Cruz, Puebla, and (?) Mexico (Mexico City).

9: Mexico (Valles, San Luís Potosí 3; Tampico, Tamaulipas 5; Pueblo Viejo, Vera Cruz 1).

olive gray back, and another from São Paulo de Olivença, Rio Solimões (Carnegie Museum, No. 95754), which closely approaches the rufous-backed female of *P. r. rufus*. The lower mandible is either blackish, yellowish, or parti-colored. I am now inclined to regard the two young birds obtained by Natterer near Pará, formerly referred to *P. rufus*, as individual variants of the present species, their dimensions (wing 87, 91; tail 63, 70) being too small for the southern bird.

Material examined.—French Guiana: Tamanoir 8; Pied Saut, Oyapock 1.—Venezuela: San Pedro, Caura River 1.—Colombia: Bogotá 2.—Brazil: Cayari, Uassa Swamp, northern Pará 1; upper Rocana, northern Pará 1; Oucoupi Island, Uassa Swamp 1; Pará 3; Ipitinga, Rio Acará 1; Santarém 2; Colonia do Moju, Santarém 7; Villa Braga, Rio Tapajóz 1; Obidos 2; Calama, Rio Madeira 2; Manicoré, Rio Madeira 1; Hyutanahán, Rio Purús 4; Nova Olinda, Rio Purús 1; Arimã, Rio Purús 3; São Paulo de Olivença, Rio Solimões 4; Tonantins, Rio Solimões 2.—Peru: Sarayacu, Rio Ucayali 1.—Bolivia: Guarayos 1; Rio Yapanani 2; Buenavista 1.

<sup>1</sup>Type, according to Nelson (North American Fauna, 14, p. 47, 1899), from vicinity of Jalapa, Vera Cruz.

**\**Platypsaris aglaiae sumichrasti* Nelson. SUMICHRAST'S BECARD.**

*Platypsaris aglaiae sumichrasti* NELSON, Auk, 14, p. 52, 1897—Otatitlan, Tlacotalpán, southern Vera Cruz; idem, North American Fauna, 14, p. 47, 1899—humid lowlands of Vera Cruz and thence to Guatemala; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 852, 1907—part,<sup>1</sup> lowlands of Vera Cruz through Oaxaca, Tabasco, and Chiapas to Guatemala and British Honduras (monog.); DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Mazatenango and Patulul, Guatemala; PETERS, Auk, 30, p. 375, 1913—Camp Mengel, Quintana Roo; BANGS and PETERS, Bull. Mus. Comp. Zool., 68, p. 398, 1928—Tapanatepec, Oaxaca.

*Pachyrhamphus aglaiae* (not of LAFRESNAYE) SCLATER, P.Z.S.Lond., 24, p. 297, 1856—Córdova, Vera Cruz (descr., crit.); idem, l.c., 25, p. 74, 1857—part, descr. and hab. Córdova; idem and SALVIN, Ibis, 1859, p. 124—Cajabón, Guatemala; OWEN, l.c., 1861, p. 64, pl. 2, fig. 4—Choacús, Guatemala (nest and egg descr.).

*Platypsaris aglaiae* SCLATER, P.Z.S.Lond., 27, p. 385, 1859—Playa Vicente, Río Tesechoacán, southern Vera Cruz; SUMICHRAST, Mem. Boston Soc. N.H., 1, p. 558, 1869—part, hot and temperate regions of Vera Cruz.

*Hadrostomus aglaiae* ELLIOT, Ibis, 1859, p. 394 (crit.); FERRARI-PEREZ, Proc. U.S.Nat. Mus., 9, p. 156, 1886—part, Oaxaca; SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—part, spec. f-h, n-b', Tonalá (Chiapas), Cacoprieto (Oaxaca), Choctum, Vera Paz, Retalhuleu, Chisee, and Volcán de Fuego (Guatemala); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, localities in southern Vera Cruz, Tabasco, Oaxaca, Chiapas, and Guatemala.

*Hadrostomus albiventris* (not of LAWRENCE) LANTZ, Trans. Kansas Ac. Sci., 16, p. 221, 1899—Naranjó, Guatemala.

Range: Southeastern Mexico, from southern Vera Cruz (Tlacotalpán; Otatitlan; Córdova; Playa Vicente, etc.) through Oaxaca, Tabasco, and Chiapas to British Honduras, Guatemala, and Salvador (Lake Guja; Hacienda Zapotitán).<sup>2</sup>

6: Guatemala (Mazatenango 1; Patulul, Sololá 5).

***Platypsaris aglaiae hypophaeus* Ridgway. GRAY-THROATED BECARD.**

*Platypsaris aglaiae hypophaeus* RIDGWAY, Proc. U.S.Nat. Mus., 14, p. 467, Oct. 26, 1891—San Pedro Sula, Honduras; idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 854, 1907—Honduras to Costa Rica, and (?) southeastern Guatemala (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 664, 1910—El Hogar, Caribbean Costa Rica.

*Platypsaris aglaiae obscurus* RIDGWAY, Proc. U.S.Nat. Mus., 14, p. 474, Oct. 31, 1891—Jiménez, Costa Rica; idem, l.c., 16, p. 612, 1893—Jiménez

<sup>1</sup>Specimens from southern Tamaulipas (Tampico; Altamira), referred here by R. Ridgway, appear to me inseparable from *P. a. aglaiae*, the males being much paler, the females much less rufous throughout than Guatemalan skins which I take to represent *sumichrasti*.

<sup>2</sup>Fide VAN ROSSEM (in litt.).

(crit.); BANGS, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Ceiba, Honduras (crit.).

*Hadrostomus aglaiae* (not *Pachyrhynchus aglaiae* LAFRESNAYE) SCLATER and SALVIN, P.Z.S.Lond., 1870, p. 837—Honduras; SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—part, Honduras; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, San Pedro, Honduras.

*Platypsaris aglaiae* CHERRIE, Proc. U.S.Nat. Mus., 14, p. 535, 1891—Jiménez, Costa Rica.

Range: Atlantic slope of Honduras (San Pedro Sula; Santa Ana; Ceiba), Nicaragua, and extreme northeastern Costa Rica (Jiménez; El Hogar).

**\**Platypsaris aglaiae latirostris* (Bonaparte). BROAD-BILLED BECARD.**

*Pachyrhamphus latirostris* BONAPARTE, Compt. Rend. Ac. Sci., 38, p. 658, 1854—Nicaragua; idem, Not. Coll. Ornith. Delattre, p. 87, 1854—Nicaragua; SCLATER, P.Z.S.Lond., 25, p. 74, 1857—Nicaragua (monog.).

*Hadrostomus aglaiae* (not *Pachyrhynchus aglaiae* LAFRESNAYE) CABANIS, Journ. Orn., 9, p. 252, 1861—Lepanto, Gulf of Nicoya, Costa Rica; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 116, 1868—Costa Rica (ex Cabanis); SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—part, spec. c'-e', Nicaragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, Nicaragua and Costa Rica.

*Hadrostomus homochrous?* (not of SCLATER) RIDGWAY, Proc. U.S.Nat. Mus., 5, p. 397, 1882—La Palma de Nicoya, Costa Rica.

*Hydrostomus* (typog. error) *latirostris* RIDGWAY, Proc. U.S.Nat. Mus., 6, p. 393, 1884—Ometepe, Lake Nicaragua, Nicaragua (crit.).

*Platypsaris latirostris* RIDGWAY, Proc. U.S.Nat. Mus., 14, pp. 468, 469, 474, in text, 1891—Ometepe, Nicaragua and La Palma de Nicoya, Costa Rica.

*Platypsaris aglaiae latirostris* RIDGWAY, Proc. U.S.Nat. Mus., 14, pp. 468, 469, 1891—Ometepe, Nicaragua; idem, l.c., 16, p. 612, in text, 1893—La Palma de Nicoya, Costa Rica; idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 855, 1907—Pacific slope of Costa Rica, Nicaragua, and Salvador (monog.); BANGS, Proc. Biol. Soc. Wash., 22, p. 32, 1909—Bolson, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 664, 1910—Bolson, Costa Rica.

Range: Pacific slope of Salvador (west to Salvador City), Nicaragua (Ometepe; San Gerónimo, Chinandega), and Costa Rica (Bolson; La Palma de Nicoya and Lepanto, Gulf of Nicoya).

5: Nicaragua (San Gerónimo, Chinandega 5).

**\**Platypsaris aglaiae albiventris* (Lawrence). XANTUS'S BECARD.**

*Hadrostomus albiventris* LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 8, p. 475, 1867—Plains of Colima, Colima, Mexico; idem, Mem. Bost. Soc. N.H., 2, p. 289, 1874—Mazatlán, Sinaloa, and plains of Colima; SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—Presidio, Sinaloa.



(?) *Pachyrhamphus aglaiae* (not of LAFRESNAYE) SCLATER, P.Z.S.Lond., 25, p. 74, 1857—part, Coahuila.

*Hadrostomus aglaiae* LAWRENCE, Bull. U.S.Nat. Mus., 4, p. 28, 1876—Dondominguillo, Oaxaca; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, localities in Sonora, Jalisco, Colima, and Guerrero.

*Platypsaris albiventris* PRICE, Auk, 5, p. 425, 1888—Huachuca Mts., Arizona; JOUY, Proc. U.S.Nat. Mus., 16, p. 783, 1893—Barranca Ibarra, Jalisco; MILLER, Bull. Amer. Mus. N.H., 21, p. 356, 1905—Escuinapa, Sinaloa; SWARTH, Pacific Coast Avif., 4, p. 20, 1904—Huachuca Mts., Arizona.

*Platypsaris aglaiae albiventris* RIDGWAY, Proc. U.S.Nat. Mus., 14, p. 469, 1891—western Mexico; NELSON, North Amer. Faun., 14, p. 57, 1899—west coast of Mexico from the Isthmus of Tehuantepec to Arizona; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 856, 1907—Pacific slope of Mexico, northward into southern Arizona; SWARTH, Pacific Coast Avif., 10, p. 40, 1914—Huachuca Mts., Arizona.

Range: Pacific slope of Mexico, in states of Chihuahua, Sonora, Sinaloa, Jalisco, Michoacán, Morelos, Colima, Guerrero, and Oaxaca (Dondominguillo), and Nayarit (Tepic), northward into southern Arizona (Ramsey Canyon, Huachuca Mountains), eastward (?) to Coahuila and Nuevo León (Cerro de la Silla).

11: Mexico (Chihuahua 1; Presidio, near Mazatlán, Sinaloa 1; Tuxpam, Jalisco 6; Colima 3).

***Platypsaris aglaiae insularis* Ridgway. TRES MARIAS BECARD.**

*Platypsaris insularis* RIDGWAY, Man. N. Amer. Birds, p. 325, 1887—Tres Marias Islands, western Mexico.

*Hadrostomus aglaiae* var. *affinis* GRAYSON, Proc. Boston Soc. N.H., 14, p. 279, 1871—Tres Marias Islands; LAWRENCE, Mem. Boston Soc. N.H., 2, p. 289, 1874—Tres Marias.

*Hadrostomus aglaiae* (not *Pachyrhynchus aglaiae* LAFRESNAYE) SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, Tres Marias Islands.

*Platypsaris aglaiae insularis* RIDGWAY, Proc. U.S.Nat. Mus., 14, p. 469, 1891—Tres Marias; NELSON, North Amer. Fauna, 14, p. 47, 1899—María Madre Island, Tres Marias; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 857, 1907—Tres Marias Islands (monog.).

Range: Tres Marias Islands, off western Mexico.

**\**Platypsaris aglaiae yucatanensis* Ridgway. YUCATÁN BECARD.**

*Platypsaris aglaiae yucatanensis* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 120, 1906—Yucatán; idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 858, 1907—Yucatán (monog.); GRISCOM, Amer. Mus. Novit., 235, p. 15, 1926—Vigia Chica and Xcaret, Yucatán.

*Hadrostomus aglaiae* (not *Pachyrhynchus aglaiae* LAFRESNAYE) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 204, 1869—Mérida, Yucatán; BOUCARD, P.Z.S.Lond., 1883, p. 449—Mérida, Izamal, and Tizimín, Yucatán (habits); SCLATER, Cat. B. Brit. Mus., 14, p. 335, 1888—part, spec. i-k, Tizimín, Mérida, Yucatán; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 121, 1890—part, Mérida, Buctzotz, Peto, and Tizimín, Yucatán.

*Tityra aglaiae* NEHRKORN, Journ. Orn., 29, p. 67, 1881—Yucatán (descr. of eggs).

*Platypsaris aglaiae* COLE, Bull. Mus. Comp. Zool., 50, p. 134, 1906—Chichen-Itza, Yucatán.

Range: Yucatán, eastern Mexico.<sup>1</sup>

4: Yucatán (San Felipe 1; Río Lagarto 1; unspecified 2).

**\*Platypsaris niger (Gmelin). JAMAICAN BECARD.**

*Lanius niger* GMLIN, Syst. Nat., 1, (1), p. 301, 1788—based on "Black Shrike" LATHAM, Gen. Syn. Birds, 1, (1), p. 187, 1781, Jamaica (descr. of male).

*Pachyrhynchus aterrimus* LAFRESNAYE, Rev. Zool., 9, p. 320, 1846—Jamaica (descr. of male).

*Tityra leuconotus* GRAY (and MITCHELL), Genera Birds, 1, pl. 63, (male, female), 1846—Jamaica; GOSSE, Birds Jamaica, p. 187, 1847—Jamaica (habits).

*Pachyrhamphus nigrescens* CABANIS, Arch. Naturg., 13, (1), p. 241, 1847—Jamaica (descr. of male and female).

*Psaris nigrescens* KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852 (diag.).

*Pachyrhamphus niger* SCLATER, P.Z.S.Lond., 25, p. 72, 1857—Jamaica (monog.).

*Platypsaris nigra* SCLATER, P.Z.S.Lond., 1861, p. 77—Jamaica; ALBRECHT, Journ. Orn., 10, p. 199, 1862—Jamaica.

*Hadrostomus niger* MARCH, Proc. Ac. Nat. Sci. Phila., 1863, p. 290—Jamaica; CORY, Auk, 3, p. 337, 1886—Jamaica (descr.); SCLATER, Cat. B. Brit. Mus., 14, p. 334, 1888—Spanishtown, Jamaica; CORY, Birds W. Ind., p. 132, 1889—Jamaica (descr.); SCOTT, Auk, 10, p. 177, 1893—Jamaica, above 3000 feet.

*Platypsaris niger* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 849, 1907—Jamaica (monog.).

Range: Island of Jamaica, Greater Antilles.

2: Jamaica (Trelawney 1, unspecified 1).

<sup>1</sup>Birds from Holbox and Cozumel Islands, recorded as *Hadrostomus aglaiae* by SALVIN (Ibis, 1885, p. 191—Cozumel; l.c., 1889, p. 364—Holbox and Cozumel), SCLATER (Cat. B. Brit. Mus., 14, p. 335, 1888—spec. l, m), and SALVIN and GODMAN (Biol. Centr.-Amer., Aves, 2, p. 121, 1890) probably belong likewise here.

Genus **TITYRA** Vieillot.<sup>1</sup>

*Tityra* VIEILLOT, Analyse Nouv. Orn. Élé., p. 39, April, 1816—type by monotypy "Bécarde" BUFFON = *Lanius cayanus* LINNAEUS.

*Psaris* CUVIER, Règne Anim., 1, p. 340, Dec., 1816—type by monotypy *Lanius cayanus* LINNAEUS.

*Pachyrhynchus* WAGLER in HAHN, Vögel aus Asien, Afrika, etc., livr. 13, pl. 6, 1822—type by monotypy *Pachyrhynchus melanocephalus* WAGLER = *Lanius cayanus* LINNAEUS.

*Erator* KAUP, P.Z.S.Lond., 19, "1851," p. 47, Oct., 1852—type by subs. desig. (GRAY, 1855, p. 51) *Lanius inquisitor* LICHTENSTEIN.

*Exetastes* CABANIS and HEINE,<sup>2</sup> Mus. Hein., 2, p. 83, 1859—new name for *Erator* KAUP.

**\*Tityra cayana cayana (Linnaeus).** CAYENNE TITYRA.

*Lanius cayanus* LINNAEUS, Syst. Nat., 12th ed., 1, p. 137, 1766—based on "La Pie-grièche grise de Cayenne" BRISSON, Orn., 2, p. 158, pl. 14, fig. 1 (=male), 1760, Cayenne.

*Lanius naevius* GMELIN, Syst. Nat., 1, (1), p. 304, 1788—based on DAUBENTON, Pl. Enl. 377 (=female), Cayenne.

*Pachyrhynchus melanocephalus* WAGLER in HAHN, Vögel aus Asien, Africa, etc., livr. 13, pl. 6 (=female), 1822—Brazil.

*Tityra cinerea* VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 93, p. 859, 1823—based on BRISSON's "La Pie-grièche grise" and DAUBENTON, Pl. Enl. 304, fig. 1 (=male), and 377 (=female), Cayenne; VIEILLOT (et OUDART), Galerie Ois., 1, (2), p. 217, pl. 134 (=male), 1824—Cayenne.

*Psaris virgata* (H. SMITH MS.) J. E. GRAY in GRIFFITH, Animal Kingdom, 6, plate facing p. 488 (=female), 1829—no locality given.

*Psaris cayanensis* SWAINSON, Classif. Birds, 2, p. 255, July, 1837—based on DAUBENTON, Pl. Enl. 377, Cayenne.

*Psaris guianensis* SWAINSON, Anim. Menag., p. 286, Dec., 1837—interior of Guiana.

*Pachyrhynchus cajanus* SPIX, Av. Bras., 2, p. 32, pl. 44, fig. 1 (=male), 1825—part, descr. of male.

*Psaris cayanus* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 41, 1837—Guarayos, Bolivia (spec. in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 301, 1839—Guarayos (descr. of male); KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852—diag.

*Tityra cayana* CABANIS, Arch. Naturg., 13, (1), p. 238, 1847 (synonymy); idem in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 697, 1848—British Guiana (habits); BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER, P.Z.S.Lond., 23, p. 150, 1855—Bogotá; idem, l.c., 25, p. 69, 1857—Cayenne, British Guiana, Trinidad, Venezuela (Cumaná), Bogotá (monog.); idem, l.c., p. 265, 1857—Río Javarrí; LÉOTAUD, Ois. Trinidad, p. 239, 1866—Trinidad; SCLATER and SALVIN, P.Z.S.

<sup>1</sup>I do not see any practical advantage in subdividing this well-defined group.

<sup>2</sup>*Exetastes* BONAPARTE (Ann. Sci. Nat., 4th ser., Zool., 1, p. 134, 1854) is a nomen nudum.



Lond., 1867, p. 578—Pará; idem, l.c., 1868, p. 168—Pilar, Bermúdez, Venezuela; PELZELN, Orn. Bras., 2, p. 119, 1868—part, Borba, Barra do Rio Negro [= Manáos ], Barcellos, Forte do Rio Branco, and Pará, Brazil (spec. in Vienna Museum examined); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 284—Santa Cruz and Río Javarri, Peru; idem, l.c., 1879, p. 617—Guarayos, Bolivia (ex d'ORBIGNY); TACZANOWSKI, Orn. Pér., 2, p. 354, 1884—Santa Cruz and Río Javarri, Peru; SALVIN, Ibis, 1885, p. 301—Bartica Grove, Camacusa, Merumé Mts., and Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 328, 1888—Cayenne, Bartica Grove, Camacusa, Roraima, Pará, Río Ucayali, Iquitos, Sarayacu (Ecuador), Bogotá, Pilar (Venezuela), Trinidad; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; ALLEN, Bull. Amer. Mus. N.H., 4, p. 55, 1892—El Pilar, Bermúdez, Venezuela; CHAPMAN, l.c., 6, p. 46, 1894—Princetown, Trinidad; GOELDI, Ibis, 1897, pp. 154, 155, 161—Counany and Amapá, n. Pará; PHELPS, Auk, 14, p. 365, 1897—San Antonio, Bermúdez, Venezuela; GOODFELLOW, Ibis, 1901, p. 709—Río Suno and Río Coca, Upper Napo, Ecuador; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 55, 1902—Maipures, Río Orinoco, and Suapure and La Pricion, Caura, Venezuela; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Río Jurúa; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 667, 1906—part, excl. Retiro, Matto Grosso (crit.); idem, Nov. Zool., 12, p. 294, 1905—Igarapé-assú, Pará; idem, l.c., 13, p. 27, 1906—Caparo, Trinidad; l.c., p. 364, 1906—Santo Antonio do Prata, Pará; idem, l.c., 17, p. 312, 1910—Borba, Rio Madeira; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 13, p. 495, 1907—French Guiana; IHERING, Cat. Faun. Braz., 1, p. 304, 1907—Río Jurúa; BERLEPSCH, Nov. Zool., 15, p. 139, 1908—Roche-Marie, French Guiana; SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Pará, Amapá, Río Mojú, Santo Antonio do Prata, and Monte Alegre; idem, l.c., 56, p. 13, 1908—Río Purús; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 31, 90, 1912—Peixe-Boi and Ipitanga (Pará localities); STONE, Proc. Ac. Nat. Sci. Phila., 65, p. 205, 1913—Cariacuito, Paría Peninsula, Venezuela; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 347, 1914—Pará, Providencia, Ananindeua, Benevides, Apehú, Peixe-Boi, Santo Antonio do Prata, Río Mojú, Río Tocantins (Baião), Río Purús, Amapá, Monte Alegre, Río Jamundá (Faro); BEEBE, Zoologica (N.Y.), 2, p. 92, 1916—Utinga, Pará; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 251, 1916—from Caicara to above the falls at Maipures, Orinoco River, Venezuela; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 488, 1917—Florescia and Villavicencio, Colombia; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 70, 1918—vicinity of Paramaribo, Lelydorp, and Javaweg, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 267, 1921—various localities; HELLMAYR, Nov. Zool., 32, p. 14, 1925—Guarayos, Bolivia (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 538, 1926—eastern Ecuador; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 168, 1928—Pinheiro, Pará.

*Tityra intermedia* CABANIS and HEINE, Mus. Hein., 2, p. 81, 1859—Pará (type in Heine Collection examined; =immature female).<sup>1</sup>

<sup>1</sup>The type which I have recently examined proves to be an immature female of *T. c. cayana*. It is certainly misleading to compare it with *T. semifasciata*, for the coloration of the bill, particularly on the lower mandible, does not materially differ from certain other specimens from the Pará region and French Guiana, with

*Tityra brasiliensis* (not of SWAINSON) PELZELN, Orn. Bras., 2, p. 119, 1868—part, Barra [= Manáos] and Pará (spec. in Vienna Museum examined).

*Tityra brasiliensis* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 667, 1906—part, females Nos. 6, 7, Barra do Rio Negro and Pará; idem, l.c., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Pará.

Range: French, Dutch, and British Guiana; Trinidad; Venezuela; eastern Colombia; eastern Ecuador; eastern Peru; northern Brazil, along the Amazon and its tributaries east to the Pará District; eastern Bolivia.<sup>1</sup>

10: Dutch Guiana (vicinity of Paramaribo 1); British Guiana (Hyde Park, Demerara River 2); Venezuela (Catatumbo River, Zulia 2); Colombia (Bogotá 1); Bolivia (Buenavista 3, Río Palacios, near Buenavista 1).

which it also agrees in coloring and markings of the back and under parts. The head is molting, and while the pileum and auriculars are, for the greater part, still covered with the brownish black feathers of the juvenile plumage, whose whitish bases show through here and there, a number of newly growing feathers in the superciliary region are uniform glossy black as in the adult female. The alleged lesser amount of black in the malar region is due to the fact that the feathers, just emerging from the sheaths, are not fully grown. Measurements of the type: Wing 113; tail 73; bill 25.

<sup>1</sup>Since discussing the relationship of *T. cayana* and *T. brasiliensis* (in Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, pp. 666-668, 1906), I not only have once more gone over the entire series in the Vienna Museum, but have also carefully studied a large amount of additional material with the result that the views, expressed in the paper referred to, must be thoroughly modified. In comparing series from the heart of the ranges of *T. cayana* and *T. brasiliensis*, the characters separating the two forms, viz., the markings of the bill and the coloration of the female, are found to be perfectly constant. All of the numerous adult females seen from the Guianas, Venezuela, and Trinidad have the top and sides of the head uniform black, the ground color of the upper parts clear gray (without any brownish tinge), and the ventral surface pure white, narrowly streaked with black on foreneck and chest, while the bill, in both sexes, is reddish, tipped with black. This type of coloration also prevails in Amazonia, though at various places on the lower Amazon: at Pará, Santarém, and Manáos—along with normally colored specimens—females with streaked head, brownish back, buffy, more heavily striped under parts, and mostly black bills are occasionally found, which cannot be distinguished from east-Brazilian females of *T. brasiliensis*. In Bolivia, where its range adjoins that of the latter form, intergradation is likewise suggested. Seven adult males from Buenavista, dept. Santa Cruz, are typically *cayana*, while another male from the same locality (Field Museum, June 18, 1924. J. Steinbach, No. 13490), in coloring of bill, resembles *brasiliensis*. Females from Buenavista have the bill of *cayana*, but differ from more northern examples by having the black hood less compact, the feathers being laterally slightly edged with grayish, the upper parts more buffy grayish, and the chest sometimes faintly shaded with buffy, thus displaying variation towards the characters of *brasiliensis*.

Material examined.—Colombia: Bogotá 1; Palmar, Boyacá 1.—Venezuela: Catatumbo River, Zulia 2; El Trompillo, Carabobo 1; Sierra de Carabobo 2; Caura Valley 9; San Pedro, Caura River 2; El Llagual, Caura 1; El Callao, dist. Yuruari 2; Yacua, Paría Peninsula 1; near Cumaná 1.—Island of Trinidad: Caparo 10.—British Guiana: Bartica Grove 2; Demerara River 2.—Dutch Guiana: near Paramaribo 1.—French Guiana: Cayenne 4; Mana 5; Tamanoir, Mana River 1; Pied Saut, Oyapock 8.—Brazil: Forte do Rio Branco 1; Barcellos 2; Manáos 5; Obidos 6; Borba, Rio Madeira 1; Pará 4; Benevides, Pará 1; Marco da

\**Tityra cayana braziliensis* (Swainson). BRAZILIAN TITYRA.

*Psaris braziliensis* SWAINSON, Anim. Menag., p. 286, Dec., 1837—"northern Brazil" (descr. of male and female; female type in Cambridge (Eng.) Museum examined); KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852—diag.; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 457, 1856—Nova Friburgo (Rio), São Paulo, and Santa Catharina.

*Psaris maximus* KAUP, P.Z.S.Lond., 19, "1851," p. 46, Oct., 1852—no locality given (descr. of young).

*Pachyrhynchus cajanus* (not *Lanius cayanus* LINNAEUS) SPIX, Av. Bras., 2, p. 32, 1825—part, descr. of female, Piauhý (spec. in Munich Museum examined).

*Tityra brasiliensis* CABANIS, Arch. Naturg., 13, (1), p. 239, 1847—Brazil; SCLATER, P.Z.S.Lond., 25, p. 70, 1857—Brazil (Piauhý and Rio de Janeiro), "Corrientes," and Paraguay (excl. Bolivia); PELZELN, Orn. Bras., 2, p. 119, 1868—part, Rio de Janeiro, Mattodentro, Butuhurú, Ypanemá, and Itararé, Antonio Dias, and Irisanga (São Paulo), Curytiba, Paraná, and Engenho do Gama, Matto Grosso (spec. in Vienna Museum examined); REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 323—Curvelo and Lagôa Santa, Minas Geraes; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 139, 1885—Taquara, Rio Grande do Sul; BERLEPSCH, Journ. Orn., 35, p. 13, 1887—Lambaré, Paraguay; SCLATER, Cat. B. Brit. Mus., 14, p. 329, 1888—Pernambuco, Bahia, Rio de Janeiro, Engenho do Gama, São Paulo, and "Pelotas," Rio Grande do Sul; IHERING, Annuario Est. Rio Grande do Sul, 16, p. 127, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 211, 1899—São Carlos do Pinhal, São Paulo; idem, l.c., 4, p. 156, 1900—Nova Friburgo, Rio; BERTONI, Anal. Cient. Parag., Ser. 1, No. 1, p. 110, 1901—Alto Paraná, Paraguay (habits); REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 70, 1910; p. 152, 1925—near Fazenda Ingazeira, Rio Preto, Bahia, and Burity-Pé do Morro Trail, Santa Maria, and Santa Philomena, Piauhý (spec. in Vienna Museum examined); CHUBB, Ibis, 1910, p. 601—Sapucay, Paraguay; GRANT, l.c., 1911, p. 125—Coimbrá, Matto Grosso; CHROSTOWSKI, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 483, 498, 1912—Fernandes Pinheiro, Paraná; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, Bahia; SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 179, 1926—Marechal Mallet and Fazenda Durski, Paraná; HOLT, Bull. Amer. Mus. N.H., 57, p. 310, 1928—Serra do Itatiaya, Paraná.

*Tityra cayana* PELZELN, Orn. Bras., 2, p. 119, 1868—part, Retiro, Matto Grosso (spec. in Vienna Museum examined); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 667, 1906—part, spec. 6, Retiro, Matto Grosso.

*Tityra cayana brasiliensis* ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Chapada, Matto Grosso.

Legua, Pará 1; Igarapé-assú, Pará 1; Santo Antonio do Prata 4; Peixe-Boi, Pará 2; Ipitinga, Rio Acará 2; Diamantina, Santarém 1; Santarém 3; Arimã, Rio Purús 1; Tonantins, Rio Solimões 3.—Bolivia: Río Palacios 3; Buenavista 7; Prov. del Sara 2; Guarayos 2.



*Tityra braziliensis* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 667, 1906—part, excl. Barra do Rio Negro and Pará (crit.); IHERING, Cat. Faun. Braz., 1, p. 305, 1907—São Carlos do Pinhal, Bebedouro, Rio Feio, Itapura, Rio Mogy-Guassú, and Jaboticabal (São Paulo), and Nova Hamburgo, Rio Grande do Sul; HELLMAYR, Nov. Zool., 15, p. 56, 1908—Goyaz; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, pp. 309, 540, 1910—Santa Ana, Misiones, and Alto Paraná; idem, Bol. Soc. Physis, 1, p. 347, 1914—Misiones.

*Tityra brasiliensis* consp.? CHROSTOWSKI, Compt. Rend. Soc. Sci. Varsovie, 5, pp. 483, 498, 1912—Coupim, Paraná.

*Tityra cayana braziliensis* HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 336, 1929—Piauhy (crit.).

Range: Eastern and southern Brazil, from Piauhy and Pernambuco south to Rio Grande do Sul, west to Matto Grosso; Paraguay; northeastern Argentine (Misiones).<sup>1</sup>

9: Brazil (Victoria, São Paulo 1; Macaco Secco, near Andarahy, Bahia 2); Paraguay (Itapé 1); Argentina, Misiones (Eldorado 3, Puerto Segundo 2).

**\**Tityra semifasciata semifasciata* (Spix). BAND-TAILED TITYRA.**

*Pachyrhynchus semifasciatus* SPIX, Av. Bras., 2, p. 32, pl. 44, fig. 2, 1825—Pará (type in Munich Museum examined; =male).

*Tityra semifasciata* CABANIS, Arch. Naturg., 13, (1), p. 239, 1847—part, Pará; PELZELN, Orn. Bras., 2, p. 119, 1868—part, Barra do Rio Negro, Rio Amazonas, and Rio Muriá; ALLEN, Bull. Essex Inst., 8, p. 79, 1876—

<sup>1</sup>Birds from Bahia down to Santa Catharina, Misiones, and Paraguay agree well together. Adult males from Piauhy are not different either, but an adult female from Santa Maria, west of Santo Antonio de Gilboez, in that state, and the (female) type of *P. braziliensis* in the Cambridge (Eng.) Museum have the ground color of the back clear gray instead of brownish, and that of the lower parts nearly pure white, forming thus the transition to *T. c. cayana*. As the latter form does in eastern Bolivia, *T. c. braziliensis*, in western Matto Grosso, intergrades with its northern representative. While two adult males and two females from Engenho do Gama, on the upper Guaporé, and a single female from Chapada are in every way typically *braziliensis*, another adult male taken by Natterer at Retiro, in the same district as Engenho do Gama, has the reddish, black-tipped bill of *cayana*, and two females in the American Museum of Natural History, collected by Geo. K. Cherrie at Urucúm in 1913, in markings of bill and coloration of plumage, likewise resemble Guianan and Venezuelan examples. As in the case of the aberrant Lower-Amazonian and Bolivian specimens discussed under the preceding heading, I take them to be individual variants of the prevalent breeding race.

Material examined.—Piauhy: Santa Philomena 1; Burity, near Parnaguá 1; Santa Maria 1.—Bahia: Fazenda Ingazeira, Rio Preto 1; Macaco Secco, near Andarahy 2; Bahia 7.—Rio de Janeiro 1.—Minas Geraes: Agua Suja, near Bagagem 1.—Goyaz: Goyaz City 2.—São Paulo: Victoria 1; Ipanemá 2; Antonio Dias, near Campinas 1; Mattodentro 1; Itararé 1; Irisanga 1.—Paraná: Curityba 3.—Santa Catharina: Serra do Mirador 1.—Matto Grosso: Chapada 1; Urucúm 2; Engenho do Gama 4; Retiro 1.—Paraguay: Bernalcué 1; Rio Negro 1; Itapé 1.—Argentina: Misiones 5.

Santarém; TACZANOWSKI, Orn. Pér., 2, p. 353, 1884—part, Huambo, Yurimaguas, and Xeberos, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. m'-r', Yauayacu and San José (Ecuador), Iquitos and Río Ucayali (Peru), Pará; BERLEPSCH, Journ. Orn., 37, p. 99, 1889—Tonantins, Rio Solimões; idem, l.c., p. 303, 1889—Shanusi, near Yurimaguas, Peru; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 16, 1899—Gualaquiza, Ecuador; GOODFELLOW, Ibis, 1901, p. 709—Coca, upper Napo, Ecuador; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 180, 1904—Carsevenne River, French Guiana; HELLMAYR, Abhandl. z. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 668, 1906—Pará and Manáos (note on type); HAGMANN, Zool. Jahrb., (Syst.), 26, p. 32, 1907—Mexiana; SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Maracá and Marajó; idem, l.c., 56, p. 13, 1908—Cachoeira, Rio Purús; HELLMAYR, Nov. Zool., 14, p. 363, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 312, 1910—Calama and Allianca, Rio Madeira; BERLEPSCH, l.c., 15, pp. 139, 318, 1908—Cayenne (?) and Carsevenne River, French Guiana; SNETHLAGE, Journ. Orn., 61, p. 525, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 348, 1914—Rio Tocantins (Arumatheua), Rio Xingú (Forte Ambé), Cussary, Rio Tapajóz (Santarém), Rio Purús (Cachoeira), Marajó (Soure), Maracá, Monte Alegre, Serra de Paituna, Rio Jamundá (Faro), and Maranhão.

*Tityra personata* (not of JARDINE and SELBY) SCLATER and SALVIN, P.Z.S. Lond., 1873, p. 284—Yurimaguas, Peru; ALLEN, Bull. Amer. Mus. N.H., 2, p. 73, 1889—part, Río Napo.

*Tityra semifasciata semifasciata* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 90, 1912—Rio Muriá, Pará; l.c., p. 120, 1912—Mexiana; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 488, 1917—Buena-vista, eastern Colombia; idem, l.c., 55, p. 538, 1926—Napo, Río Suno, and near Macas, eastern Ecuador.

Range: Northern Brazil, from northern Maranhão, the estuary of the Amazon, and the confines of French Guiana (Carsevenne River) west through the Amazon Valley and its tributaries to extreme northern Peru (Iquitos; Yurimaguas; Xeberos=Jeveros), north through eastern Ecuador to the eastern base of the Eastern Andes in Colombia (Buena Vista), south to the middle stretches of the Rio Madeira (Calama; Allianca; Porto Velho).<sup>1</sup>

### 3: Brazil (Porto Velho, Rio Madeira 3).

<sup>1</sup>A single specimen from the Peruvian Amazon and two from Coca, Ecuador, appear to be inseparable from a series of Brazilian skins. Birds from the Rio Madeira (Allianca, Calama, Porto Velho), in size, agree with the type and other examples from Pará. The black markings on the lateral rectrices are exceedingly variable in different individuals within the same locality.

Material examined.—Brazil: Pará (including the type) 2; Rio Muriá, Pará 1; Manáos 1; Santarém 2; Rio Madeira, Borba 1, Calama 1, Allianca 1, Porto Velho 3; Tonantins, Rio Solimões 1.—Peru: Iquitos 1.—Ecuador: Coca, upper Napo 2.

**\**Tityra semifasciata fortis* Berlepsch and Stolzmann.<sup>1</sup> GREATER BAND-TAILED TITYRA.**

*Tityra semifasciata fortis* BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 369, 1896—La Gloria, Vitoc and La Merced, Chanchamayo, dept. Junín, Peru; HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 65, 1920—Chaquimayo, dept. Puno, Peru (crit.).

*Psaris semifasciatus* (not *Pachyrhynchus semifasciatus* SPIX) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 41, 1837—Santo Corazón, Chiquitos, Bolivia (spec. in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 307, 1839—Santo Corazón, Bolivia; TSCHUDI, Arch. Naturg., 10, (1), p. 272, 1844—Peru; idem, Faun. Peru., Aves, p. 146, 1846—wood region of central Peru.

*Tityra semifasciata* SCLATER, P.Z.S.Lond., 25, p. 70, 1857—eastern Peru (ex TSCHUDI) and Santa Cruz, Bolivia (monog.); PELZELN, Orn. Bras., 2, p. 119, 1868—part, Caiçara, Engenho do Gama, and [Villa Bella de] Matto Grosso, Matto Grosso; TACZANOWSKI, P.Z.S.Lond., 1874, p. 540—Monterico, Peru; SCLATER and SALVIN, l.c., 1879, p. 617—Simacu and Santo Corazón, Bolivia; TACZANOWSKI, Orn. Pér., 2, p. 353, 1884—part, Monterico and Carabaya; SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. s'-u', Simacu, Bolivia; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1912—Pisana, upper Huallaga, Peru.

*Tityra personata* (not of JARDINE and SELBY) ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—Falls of the Rio Madeira and Reyes, northern Bolivia.

*Tityra personata semifasciata* ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Chapada, Matto Grosso.

*Tityra semifasciata semifasciata* HELLMAYR, Nov. Zool., 32, p. 14, 1925—Santo Corazón, Chiquitos and Santa Cruz, Bolivia (crit.).

Range: Central and southeastern Peru, north to the upper Huallaga (Pisana, Huachipa); northern and eastern Bolivia; and adjacent section of Matto Grosso, Brazil.

2: Peru (Huachipa, dept. Huánuco 1); Bolivia (Cerro Hosane, dept. Santa Cruz 1).

**\**Tityra semifasciata columbiana* Ridgway.<sup>2</sup> COLOMBIAN TITYRA.**

*Tityra semifasciata columbiana* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 119, 1906—La Concepción, Santa Marta, Colombia; HELLMAYR, P.Z.S.Lond.,

<sup>1</sup>*Tityra semifasciata fortis* BERLEPSCH and STOLZMANN: Similar to *T. s. semifasciata*, but larger, with heavier bill. Wing 124-131; tail 76-80.

Specimens from Matto Grosso are intermediate in size between *semifasciata* and *fortis*, but nearer the latter.

Material examined.—Peru: Huachipa, Huánuco 1; Chaquimayo, Puno 1.—Bolivia: Cerro Hosane 1, Santa Cruz 2, Santo Corazón, Chiquitos 1.—Brazil, Matto Grosso: Caiçara 1; Villa Bella de Matto Grosso 1.

<sup>2</sup>*Tityra semifasciata columbiana* RIDGWAY: Male very similar to *T. s. semifasciata* and about the same size, but lower mandible distinctly tipped with black,



1911, p. 1142—part, Nóvita, Chocó, Pacific Colombia (crit., excl. Esmeraldas, Ecuador); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 489, 1917—Nóvita, Dabeiba, and Puerto Valdivia, lower Cauca, Colombia; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 322, 1922—Chirua, La Tigra, Minca, Onaca, Valparaiso, Cincinnati, Las Vegas, Fundación, and Pueblo Viejo, Santa Marta Region; BANGS and BARBOUR, Bull. Mus. Comp. Zool., 65, p. 213, 1922—Mount Sapo, Darién.

*Tityra semifasciata heteromelaena* TODD, Proc. Biol. Soc. Wash., 29, p. 96, 1916—Sierra de Carabobo, Venezuela (type in Carnegie Museum examined).

*Tityra personata* (not of JARDINE and SELBY) SCLATER, P.Z.S.Lond., 25, p. 70, 1857—part, Santa Marta; SCLATER and SALVIN, l.c., 1879, p. 517—Remedios and Neche, Antioquia (eggs descr.); SALVIN and GODMAN, Ibis, 1880, p. 169—Minca, Santa Marta; BERLEPSCH, Journ. Orn., 32, p. 305, 1884—Bucaramanga.

*Tityra semifasciata* (not *Pachyrhynchus semifasciatus* SPIX) SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. e'-i', Minca, Remedios, Santa Marta, and Venezuela; BANGS, Proc. Biol. Soc. Wash., 12, p. 158, 1898—Pueblo Viejo, Santa Marta; ALLEN, Bull. Amer. Mus. N.H., 13, p. 154, 1900—Minca, Cacagualito, and Valparaiso, Santa Marta Region.

Range: Tropical Zone of eastern Panama (Darién), Colombia (except the extreme southwest and the Amazonian slope of the Eastern Andes), and adjacent districts of western Venezuela (Colón, Táchira; Cumbre de Valencia and Sierra de Carabobo, Carabobo; Loma Redonda, north coast mountains, near Caracas).

1: Venezuela (Colón, Táchira 1).

and the white basal zone of the lateral rectrices generally less extensive; female browner above, especially on the pileum, and more like *T. s. costaricensis*, from which it may, however, be distinguished by its brownish gray instead of deep brown back.

*T. s. heteromelaena* appears to have been based on an individual variant of the present form. In the type, the black of the pileum is more extended than in any other specimen examined, and reaches as far back as the posterior border of the eye, while there is less white in the tail, both basally and apically. Another adult male from northern Venezuela (Loma Redonda), however, in tail-pattern as well as in the restricted amount of black on the anterior crown agrees with average specimens from Santa Marta, and a female from La Cumbre de Valencia hardly differs from a topotypical series by slightly browner pileum and mantle. A male from Colón, Táchira, finally is an exact duplicate of Colombian examples.

#### MEASUREMENTS

	WING	TAIL
Ten adult males from Santa Marta, Colombia	120-124	70-77
One adult male from Nóvita, Chocó, Colombia	122	77
One adult male from Colón, Táchira, Venezuela	124	76
One adult male from Sierra de Carabobo, Venezuela (type of <i>T. s. heteromelaena</i> )	121	76
One adult male from Loma Redonda, Venezuela	119	73
Four adult females from Santa Marta, Colombia	117-126	70-77
One adult female from Nóvita, Chocó, Colombia	114	70
One adult female from Cumbre de Valencia, Venezuela	117	71

Material examined.—Colombia: Nóvita, Chocó 2; Santa Marta, Cincinnati 7, Pueblo Viejo 2, Fundación 2, Minca 2, Las Vegas 1.—Venezuela: Sierra de Carabobo 1; Cumbre de Valencia, Carabobo 1; Loma Redonda, north coast mountains, near Caracas 1; Colón, Táchira 1.

**\**Tityra semifasciata nigriceps* Allen.<sup>1</sup> BLACK-FACED TITYRA.**

*Tityra nigriceps* ALLEN, Auk, 5, p. 287, 1888—"headwaters of the Río Napo," errore; we suggest near Gualea, western Ecuador (type in American Museum of Natural History, New York, examined); idem, Bull. Amer. Mus. N.H., 2, p. 73, 1889—"Napo;" CHAPMAN, l.c., 55, p. 539, 1926—"Napo" (crit.).

*Tityra semifasciata esmeraldae* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 320, 1914—Esmeraldas, northern Ecuador; idem, l.c., 36, p. 489, 1917—Barbacoas, Colombia; idem, l.c., 55, p. 539, 1926—Esmeraldas and Chone, western Ecuador.

*Tityra nigriceps gualeae* LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 75, 1922—near Gualea, 4500 ft., western Ecuador; GYLDENSTOLPE, l.c., 19, A, No. 1, p. 71, 1926—near Gualea.

*Tityra personata* (not of JARDINE and SELBY) SCLATER, P.Z.S.Lond., 28, p. 295, 1860—Esmeraldas; ALLEN, Bull. Amer. Mus. N.H., 2, p. 73, 1889—part, San Miguel, Ecuador; GOODFELLOW, Ibis, 1901, p. 709—Santo Domingo.

*Tityra semifasciata* (not *Pachyrhynchus semifasciatus* SPIX) SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. j'-l', Esmeraldas and Balzar, Ecuador; HARTERT, Nov. Zool., 5, p. 489, 1898—Paramba, Ecuador.

*Tityra semifasciata personata* HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 668, 1906—part, n.w. Ecuador.

<sup>1</sup>*Tityra semifasciata nigriceps* ALLEN: Nearest to *T. s. columbiana*, but somewhat smaller; male above pure white (instead of pale neutral gray), only tertials and rump very faintly tinged with pale grayish, and below also whiter; black subterminal area of tail much more extensive, leaving only a restricted basal zone white; female more nearly resembling that of *T. s. semifasciata*, but with the black subterminal band much broader, the basal gray band correspondingly reduced. Wing 112-117, (female) 108-114; tail 68-76, (female) 63-70; bill 25-26.

The type of *T. nigriceps*, a skin of the ordinary Quito "make," is doubtless erroneously labeled as coming from the "Río Napo." In whiteness of the body plumage, reduction of white at the base of the rectrices, and in coloring of bill (both mandibles conspicuously tipped with blackish), it agrees perfectly with other males from western Ecuador; whereas *T. s. semifasciata* from Coca, Río Napo, like Lower-Amazonian skins has the back, breast, and sides decidedly grayish (very near pale neutral gray on the upper parts), an extensive, sharply defined white basal area in the tail, and hardly any trace of the black tip to the bill. The amount of black on the pileum is extremely variable in the west-Ecuadorian form. The majority have the black frontal band of about the same width as *T. s. columbiana*; but in a male from Vacqueria (Esmeraldas) it extends as far back as the posterior angle of the eye (as in the type of *T. s. heteromelaena*), bridging the gap between the normal form (*esmeraldae*) and the type of *T. nigriceps*, which has the entire pileum black, and even the hind neck black, spotted and edged with white. The white basal tail-area is likewise variable, and one bird from north-western Ecuador has just as little white as the type of *T. nigriceps*. The description of *T. n. gualeae* corresponds in every detail to the type specimen (an adult male with rudimentary second primary) in the American Museum of Natural History, which, I have not the least doubt, merely represents an individual variant of *T. s. esmeraldae* with the maximum of black about the head being carried down to the upper throat.

Material examined.—Western Ecuador: Santo Domingo 1; prov. Esmeraldas, Vacqueria 2, Carondelet 3, Pambilar 1; Paramba 2; "headwaters of the Río Napo" (type of *T. nigriceps*) 1.

*Tityra semifasciata columbiana* (not of RIDGWAY) HELLMAYR, P.Z.S.Lond., 1911, p. 1142—part, prov. Esmeraldas, Ecuador.

Range: Tropical Zone of western Ecuador and extreme southwestern Colombia (Barbacoas, Nariño).

1: Ecuador (Vacqueria, prov. Esmeraldas 1).

**\**Tityra semifasciata costaricensis* Ridgway. COSTA RICAN TITYRA.**

*Tityra semifasciata costaricensis* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 119, 1906—Bonilla, Costa Rica; idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 869, 1907—Panama to southern Honduras (monog.); BANGS, Auk, 24, p. 303, 1907—Boruca and Barranca de Puntarenas, Costa Rica; CARRIKER, Ann. Carnegie Mus., 6, p. 662, 1910—Costa Rica (habits); FERRY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 269, 1910—Guayabo, Costa Rica; STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 269, 1918—Gatún, Panama; RENDAHL, Ark. Zool., 12, p. 23, 1919—Pacuarito, Costa Rica, and San Juan del Norte, Ometepe, and Muyogalpa, Nicaragua; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 457, 1928—Almirante, Panama; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 180, 1929—El Tigre, Rio Cupe, Darién.

*Tityra mexicana* (not *Psaris mexicanus* LESSON) SCLATER, P.Z.S.Lond., 24, p. 141, 1856—David, Chiriquí.

*Tityra personata* (not of JARDINE and SELBY) SCLATER, P.Z.S.Lond., 25, p. 70, 1857—part, Nicaragua and Chiriquí; SCLATER and SALVIN, l.c., 1864, p. 361—Lion Hill, Panama; SALVIN, l.c., 1867, p. 149—David, Panama; idem, l.c., 1870, p. 199—Calovevora, Veragua and Bugaba, Chiriquí; LAWRENCE, Ann. Lyc. Nat. Hist., 7, p. 295, 1862—Lion Hill, Panama; idem, l.c., 9, p. 116, 1868—San José, Guaitil, and Barranca, Costa Rica; FRANTZIUS, Journ. Orn., 19, p. 309, 1869—Santa Ana and Pacaca, Costa Rica; SALVIN, Ibis, 1872, p. 318—Chontales, Nicaragua; BOUCARD, P.Z.S. Lond., 1878, p. 65—Orosi, Costa Rica; NUTTING, Proc. U.S.Nat. Mus., 5, p. 397, 1882—La Palma de Nicoya, Costa Rica; RIDGWAY, l.c., p. 500, 1882—San José, Costa Rica; idem, l.c., 6, p. 393, 1884—Ometepe, Nicaragua; idem, l.c., 10, p. 589, 1887—Segovia River, Honduras; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Navarro, Pozo Azul de Pirris, Naranjo de Cartago, Monte Redondo, Río Sucio, Alajuela, Jiménez, Las Trojas, and Cartago, Costa Rica; CHERRIE, Auk, 9, p. 322, 1892—San José, Costa Rica (nest and eggs descr.); idem, Expl. Zool. en Costa Rica 1890—91, p. 36, 1893—Lagarto, Boruca, Térraba, and Buenos Aires; RICHMOND, Proc. U.S.Nat. Mus., 16, p. 507, 1893—Río Escondido, Nicaragua (habits).

*Tityra semifasciata* (not *Pachyrhynchus semifasciatus* SPIX) CABANIS, Arch. Naturg., 13, (1), p. 239, 1847—part, Central America; BONAPARTE, Compt. Rend. Ac. Sci. Paris, 38, p. 658, 1854—Nicaragua; idem, Not. Orn. Coll. Delattre, p. 88, 1854—Nicaragua; SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. s-d', Chontales and Ometepe (Nicaragua), Cachi, Turrialba, and San José (Costa Rica), Calovevora, Bugaba, and Lion Hill (Panama); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 118,



1890—part, Panaman, Costa Rican and Nicaraguan references and localities, and Segovia River, Honduras; UNDERWOOD, Ibis, 1896, p. 439—Volcán de Miravelles, Costa Rica.

*Tityra semifasciata personata* BANGS, Proc. New Engl. Zool. Cl., 2, p. 23, 1900—Loma del León, Panama; idem, l.c., 3, p. 40, 1902—Boquete, Panama; HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 668 (in text), 1906—part, Managua, Nicaragua.

Range: Southern Honduras (Río Segovia), southward through Nicaragua and Costa Rica to western Panama (Chiriqui; Veraguas; Panama Railroad).<sup>1</sup>

20: Nicaragua (San Emilio, Lake Nicaragua 1); Costa Rica (Guayabo 7, Limón, 8, Turrialba 1, San José 1, unspecified 1); Panama (Boquete, Chiriqui 1).

**\**Tityra semifasciata personata* Jardine and Selby. MEXICAN TITYRA.**

*Tityra personata* JARDINE and SELBY, Illust. Orn., 1, Part 2, pl. 24, June, 1827—Real del Monte, Hidalgo, Mexico (=male); SCLATER, P.Z.S.Lond., 25, p. 70, 1857—part, Vera Cruz and Xalapa, Mexico, and Guatemala (monog.); MOORE, l.c., 27, p. 56, 1859—Belize, British Honduras; SCLATER, l.c., p. 366, 1859—Jalapa; idem, l.c., p. 385, 1859—Playa Vicente, Vera Cruz; SCLATER and SALVIN, Ibis, 1859, p. 124—near Iguana, a day's journey from Izabel, Guatemala; SCLATER, P.Z.S.Lond., 1864, p. 176—City of Mexico; SCLATER and SALVIN, l.c., 1870, p. 837—Honduras; SUMICHRIST, Mem. Boston Soc. N.H., 1, p. 558, 1869—Vera Cruz; LAWRENCE, Bull. U.S.Nat. Mus., 4, p. 28, 1876—Tapana and Santa Efigenia, Oaxaca; FERRARI-PEREZ, Proc. U.S.Nat. Mus., 9, p. 156, 1886—Jalapa (?), Vera Cruz; RICHMOND, l.c., 18, p. 629, 1896—Alta Mira, Tamaulipas.

*Psaris mexicanus* LESSON, Rev. Zool., 2, p. 41, 1839—Mexico (descr. of male).

*Tityra tityroides* LESSON, Rev. Zool., 5, p. 210, 1842—"San Carlos, Centre-Amérique"—San Carlos, near La Unión, Salvador.

*Tityra mexicana* SCLATER, P.Z.S.Lond., 24, p. 297, 1856—southern Mexico.

*Tityra semifasciata* (not of SPIX) CABANIS, Arch. Naturg., 13, (1), p. 239, 1847—part, Jalapa, Mexico; SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. j-r, Belize, Guatemala, and San Pedro, Honduras; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 118, 1890—part, east Mexico, British Honduras, Guatemala, and San Pedro, Honduras; LANTZ, Trans. Kansas Ac. Sci., 16, p. 221, 1899—Naranjo, Guatemala.

*Tityra semifasciata personata* BANGS, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Ceiba and Yaruca, Honduras; RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 120, 1906—central Honduras to eastern Mexico (crit.); idem, Bull.

<sup>1</sup>Specimens from Panama (Lion Hill), which we have not seen, are said to be intermediate to *T. s. columbiana*. A single female from San Emilio, Lake Nicaragua is much like females from Tabasco and Guatemala, being much less brownish above than a series from Costa Rica, but possibly it does not represent the normal type of the Nicaraguan bird.

U.S.Nat. Mus., 50, Part 4, p. 871, 1907—part, central and northern Honduras, Guatemala, and eastern Mexico, excl. Yucatán (monog.); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 668 (in text), 1906—part Jalapa, Mexico; DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 99, 1907—Los Amates, Mazatenango, and Patulul, Guatemala; PETERS, Auk, 30, p. 375, 1913—Xcopen and Camp Mengel, Quintana Roo; BANGS and PETERS, Bull. Mus. Comp. Zool., 67, p. 478, 1927—Presidio, Vera Cruz; idem, l.c., 68, p. 398, 1928—Chivela, Oaxaca.

Range: Central and northern Honduras (Santa Ana, San Pedro, San Pedro Sula, Yaruca, Ceiba, etc.), Salvador, and northward through Guatemala and British Honduras to eastern Mexico, in Campeche, Quintana Roo, Tabasco, Chiapas, Oaxaca (Santa Efigenia, Chivela, Tapana), Vera Cruz, Hidalgo, and southern Tamaulipas.

15: Honduras (San Pedro Sula 2); Guatemala (Patulul, Sololá 5, Los Amates, Izabal 3, Mazatenango 1, El Rancho, Zacapa 1, Cobán to Clusec 1); British Honduras (Arenal 1); Mexico (Tampico, Tamaulipas 1).

**\*Tityra semifasciata deses** Bangs.<sup>1</sup> YUCATÁN TITYRA.

*Tityra semifasciata deses* BANGS, Proc. Biol. Soc. Wash., 28, p. 125, 1915—Chichen-Itza, Yucatán.

*Tityra personata* (not of JARDINE and SELBY) LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 204, 1869—northern Yucatán; BOUCARD, P.Z.S.Lond., 1883, p. 448—Yucatán; CHAPMAN, Bull. Amer. Mus. N.H., 8, p. 284, 1896—Chichen-Itza, Yucatán.

*Tityra semifasciata* (not of SPIX) SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. g-i, Mérida, Yucatán; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 118, 1890—part, Mérida, Yucatán; COLE, Bull. Mus. Comp. Zool., 50, p. 133, 1906—Chichen-Itza, Yucatán.

*Tityra semifasciata personata* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 871, 1907—part, Yucatán; GRISCOM, Amer. Mus. Novit., 235, p. 15, 1926—Chunyaxche, Yucatán.

Range: Yucatán.

1: Yucatán (unspecified 1).

**Tityra semifasciata griseiceps** Ridgway.<sup>2</sup> GRAY-HEADED TITYRA.

*Tityra personata griseiceps* RIDGWAY, Auk, 5, p. 263, 1888—Mazatlán, Sinaloa; MILLER, Bull. Amer. Mus. N.H., 21, p. 355, 1905—Los Pieses, Juan Lisiarraga Mts., Sinaloa.

<sup>1</sup>*Tityra semifasciata deses* BANGS: Nearly allied to *T. s. personata*, but male above paler grayish, and with the under parts nearly pure white; female (according to Bangs) paler, more uniform and decidedly more brownish on the dorsal surface.

Judging from a single adult male, this form appears to be well characterized.

<sup>2</sup>We are not acquainted with this race.

*Tityra personata* (not of JARDINE and SELBY) LAWRENCE, Mem. Boston Soc. Nat. Hist., 2, p. 289, 1874—Mazatlán, Sinaloa, and Sierra Madre, Colima (habits).

*Tityra semifasciata* (not *Pachyrhynchus semifasciatus* SPIX) SCLATER, Cat. B. Brit. Mus., 14, p. 330, 1888—part, spec. a-c, Presidio, Sinaloa; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 118, 1890—part, localities in Sinaloa, Colima, Jalisco, and Guerrero.

*Tityra semifasciata griseiceps* RIDGWAY, Proc. Biol. Soc. Wash., 19, p. 120, 1906—western Mexico (crit.); idem, Bull. U.S.Nat. Mus., 50, Part 4, p. 873, 1907—western Mexico (monog.); McLELLAN, Proc. Calif. Ac. Sci., (4), 16, p. 37, 1927—Tepic Road.

Range: Western Mexico, in states of Sinaloa, Durango, Jalisco, Colima, Guerrero, Oaxaca (Pinotepa, Pluma, Cacoprieto), and Nayarit (Tepic).

**\**Tityra inquisitor inquisitor* (*Lichtenstein*). INQUISITIVE TITYRA.**

*Tyrannus atricapillus* (not of VIEILLOT, 1807) VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 93, p. 256, 1823—based on AZARA, No. 206, Paraguay.

*Lanius inquisitor* (Olfers MS.) LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 50, 1823—São Paulo.

*Psaris jardinii* SWAINSON, Zool. Illust., 2nd ser., 1, No. 7, pl. 35 (=male), 1830—interior of Brazil (descr. of immature male).

*Psaris natterii* (sic) SWAINSON, Anim. Menag., p. 286, Dec., 1837—"southern (?) Brazil" (type in Cambridge (Eng.) Museum examined;=adult male).

*Psaris selbii* SWAINSON, Anim. Menag., p. 286, Dec., 1837—"southern Brazil" (type in Cambridge (Eng.) Museum examined;=adult male).

*Exetastes albinuchus* CABANIS and HEINE, Mus. Hein., 2, p. 83, 1859—Brazil (types in Heine Collection examined).

*Psaris inquisitor* KAUP, P.Z.S.Lond., 19, "1851," p. 47, Oct., 1852 (diag.); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 456, 1856—part, São Paulo and "Goyaz."

*Tityra inquisitrix* CABANIS, Arch. Naturg., 13, (1), p. 239, 1847—Brazil (synon. in part); SCLATER, P.Z.S.Lond., 25, p. 71, 1857—part, São Paulo (monog.).

*Tityra (Erator) inquisitrix* PELZELN, Orn. Bras., 2, p. 120, 1868—Goyaba, Ypanemá, Irisanga, and Cubatão, São Paulo (spec. in Vienna Museum examined).

*Exetastes inquisitor* CABANIS, Journ. Orn., 22, p. 89, 1874—Cantagallo, Rio.

*Tityra inquisitor* SCLATER, Cat. B. Brit. Mus., 14, p. 331, 1888—part, spec. a-c, Brazil and "Pelotas, Rio Grande do Sul"; IHERING, Rev. Mus. Paul., 3, p. 211, 1899—São Paulo; idem, l.c., 4, p. 156, 1900—Cantagallo; idem, Cat. Faun. Braz., 1, p. 305, 1907—Ubatuba and Rincão (São Paulo),



São Francisco (Santa Catharina), and Rio Doce (Espírito Santo); CHUBB, Ibis, 1910, p. 602—Sapucay, Paraguay; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná.

*Tityra atricapilla* BERTONI,<sup>1</sup> Anal. Cient. Parag., Ser. I, No. 1, p. 109, 1901—Alto Paraná, Paraguay (descr. of male).

*Tityra lephronota* BERTONI, Anal. Cient. Parag., Ser. I, No. 1, p. 109, (in text), 1901—new name for *Tyrannus atricapillus* VIEILLOT, 1823.

*Tityra inquisitor erythrogenys* (not *Psaris erythrogenys* SELBY) REISER, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 76, p. 70, 1910; p. 153, 1925—Burity, near Parnaguá, Piahy (spec. in Vienna Museum examined).

*Tityra inquisitor inquisitor* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 32, 1912 (crit., diag., range); SZTOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 179, 1926—Salto de Ubá and Foz Iguassú, Paraná; HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 337, 1929—Burity, Piahy (crit.).

*Erator inquisitor inquisitor* DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 309, 1910—Alto Paraná, Paraguay.

Range: Eastern Brazil, from Piahy and Bahia south to Santa Catharina, and adjoining districts of Paraguay (Sapucay; Alto Paraná) and Argentina (Misiones).<sup>2</sup>

8: Brazil (Macaco Secco, near Andarahy, Bahia 1; Victoria, São Paulo 1; Joinville, Santa Catharina 1); Argentina, Misiones (Eldorado 3, Puerto Segundo 2).

<sup>1</sup>*Tityra Azarac* (sic) BERTONI (Rev. Agron. y Cienc. Aplic., 1, p. 529, 1899—eastern Paraguay), hardly more than a nomen nudum, may likewise belong here.

<sup>2</sup>This form is perhaps divisible into two races, birds from the northern parts of the range (Bahia, Piahy) being on average smaller. The female of *T. i. inquisitor* has the back decidedly brownish, coarsely spotted with blackish, and the throat and breast washed with dingy grayish buff. While three Bahia females—except in smaller size—do not appreciably differ from southern examples, one from Burity, Piahy has the (wider) frontal band and the sides of the head much deeper rufous and shows, on the breast, numerous narrow dusky streaks, of which there is no trace in the skins from other localities. The type of *P. natterii*, now in the Museum of Cambridge (Eng.) University, an adult male with modified (rudimentary) second primary, agrees in size with specimens from southern Brazil, Swainson's name becoming thus an absolute synonym of *L. inquisitor*. *P. jardinii* also appears to have been based on a male in first annual plumage (without spurious primary) of the large southern bird.

The type of *P. selbii* Sw., likewise forwarded for my inspection by Dr. Hans Gadow from the Cambridge Museum, however, is decidedly smaller, agreeing in dimensions with birds from Bahia and Piahy. It is an adult male and, in agreement with Swainson's description, the first primary falls between the fourth and fifth, if the rudimentary (second) wing feather is not taken into account. The locality "southern Brazil" is doubtless wrong, and if the slight difference in size be deemed of sufficient importance, the northern race must be called *T. inquisitor selbii* (SWAINSON).

The types of *E. albinuchus* from "Brazil" in the Heine Collection are hard to allocate, but appear to be nearer typical *inquisitor* from southern Brazil. The

**\**Tityra inquisitor pelzelni* Salvin and Godman.<sup>1</sup> PELZELN'S TITYRA.**

*Tityra pelzelni* SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 120, Dec., 1890—Matto Grosso, Brazil (type from Villa Bella de Matto Grosso in British Museum examined).

*Psaris inquisitor* (not *Lanius inquisitor* LICHTENSTEIN) LAFRESNAYE and d'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 41, 1837—Chiquitos and Santa Cruz, Bolivia (spec. in Paris Museum examined); d'ORBIGNY, Voyage Amér. Mérid., Ois., p. 302, 1839—Chiquitos and Santa Cruz, Bolivia; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 456, 1856—part, Matto Grosso and Bolivia.

*Tityra albitorques* (not of DUBUS) PELZELN, Orn. Bras., 2, p. 120, 1868—part, Engenho do Gama and [Villa Bella de] Matto Grosso, Matto Grosso (spec. in Vienna Museum examined); SCLATER, Cat. B. Brit. Mus., 14, p. 332, 1888—part, spec. y, Matto Grosso; RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Diamantina, Santarém (spec. in U.S. National Museum examined).

*Tityra inquisitrix* SCLATER, P.Z.S. Lond., 25, p. 71, 1857—part, Bolivia; idem and SALVIN, l.c., 1879, p. 617—Bolivia (ex d'ORBIGNY).

*Tityra inquisitor* ALLEN, Bull. Amer. Mus. N.H., 5, p. 110, 1893—Corumbá and Chapada, Matto Grosso (spec. examined); SNETHLAGE, Journ. Orn., 55, p. 290, 1907—Santo Antonio do Prata, Pará.

alleged color-characters do not hold good, and the shape of the bill is too variable a feature to be of diagnostic value.

	MEASUREMENTS	
	Wing	Tail
Adult males		
Four from Misiones	108, 108, 108, 114	66, 67, 69, 69
Eight from São Paulo	107, 110, 111, 111, 112, 113, 114, 115	68, 68, 69, 70, 70, 71, 71, 73
Five from Minas Geraes	110, 112, 114, 114, 115	68, 71, 71, 72, —
Type of <i>P. natterii</i> Sw.	115	73
Types of <i>E. albinuchus</i> C. & H.	108, 108	65, 67
One from Macaco Secco, Bahia	102	69
One from Burity, Piahy	106	68
Type of <i>P. selbii</i> Sw.	103	65
Adult females		
Three from São Paulo	106, 106, 110	67, 68, 71
Three from Minas Geraes	107, 108, 110	67, 67, 69
Three from Bahia	103, 104, 107	68, 68, 70
One from Burity Piahy	102	66

Material examined.—Argentina, Misiones: Puerto Segundo 2, Eldorado 3.—Santa Catharina: Joinville 1.—São Paulo: Victoria 3; Alambary 1; Ituverava 1; Ipanemá 4; Cubatão 3; Goyaba 1; Irisanga 1.—Minas Geraes: São Francisco 1; Rio Jordão, near Araguay 2; Agua Suja, near Bagagem 4.—Bahia: "Bahia" 3; Macaco Secco, near Andarahy 1.—Piahy: Burity, near Parnaguá 2.—"Brazil" (unspecified) 4.

<sup>1</sup>*Tityra inquisitor pelzelni* SALVIN and GODMAN: Similar to, and agreeing with, *T. i. inquisitor* in the male having the cheeks and auriculars black, but tail extensively white at the base and frequently with a distinct white apical margin; female much like *T. i. erythrogenys*, but not quite so purely gray above, though similarly spotted with black, and white basal area of tail more extensive; size on average smaller than in *T. i. inquisitor*.

This form combines the black sides of the head of *T. inquisitor* with the tail markings of *T. i. albitorques*. There is much individual variation in the extent of the white area at the base of the rectrices, certain specimens (from Bolivia and Matto Grosso) with the least amount of white being inseparable from typical

*Tityra inquisitor erythrogenys* (not *Psaris erythrogenys* SELBY) HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 32, 90, 1912—Peixe-Boi and Santo Antonio do Prata, Pará; idem, l.c., p. 33, 1912—part, Pará localities; BEEBE, Zoologica (N.Y.), 2, p. 93, 1916—Utinga, Pará.

*Tityra erythrogenys* SNETHLAGE, Bol. Mus. Goeldi, 8, p. 348, 1914—part, Santo Antonio do Prata, Pará.

*Tityra inquisitor pelzelni* HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 33, 1912—Matto Grosso and eastern Bolivia (monog.); idem, Nov. Zool., 32, p. 15, 1925—Chiquitos and Santa Cruz, Bolivia (crit.); HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 338, 1929—Mangunça Island, Maranhão.

Range: Eastern Bolivia (Chiquitos; dept. Santa Cruz) and western Brazil, in state of Matto Grosso, and apparently extending along the south bank of the Amazon as far east as Pará (Peixe-Boi; Santo Antonio do Prata) and northern Maranhão (Mangunça Island).

1: Brazil (Mangunça Island, Maranhão 1).

*inquisitor*. The white apical margin is not a constant feature either, it being absent in four Bolivian and three Matto Grosso skins, and but faintly suggested in two from the former and two from the latter country. Other individuals, however, show a very distinct white apical band, and in coloration of tail closely approach *albitorques*.

Birds from the lower Amazon may prove to be separable. They have even more white than the Matto Grosso skins with the maximum of white in the tail, and the auriculars, in some of the males, are streaked with white. A female from Peixe-Boi, Pará district, however, does not differ in tail markings from the average of *pelzelni*, as represented by a series from Matto Grosso, and the examination of additional material seems desirable before any further separation is attempted.

#### MEASUREMENTS

Adult males	Wing	Tail
Two from Chiquitos, Bolivia	104,105	67,—
Two from Buenavista, Bolivia	108,108	67,69
Two from Palmarito, Río San Julian, Bolivia	107,108	65,66
One from Santa Cruz, Bolivia	108	63
Two from Villa Bella de Matto Grosso	104,105	63,65
Two from Chapada, Matto Grosso	107,110	66,69
One from Corumbá, Matto Grosso	107	69
One from Urucúm, Matto Grosso	106	64
Two from Santarém, Río Tapajóz	102,105	66,67
One from Mangunça Island, Maranhão	103	63
Adult females		
Two from Chiquitos, Bolivia	102, 103	64,66
One from Buenavista, Bolivia	105	63
Three from Matto Grosso	100,103,106	62,64,68
Two from Santarém, Río Tapajóz	94,96	61,62
One from Peixe-Boi, Pará	98	62

Material examined.—Bolivia: Chiquitos 2; Río Quisera, northern Chiquitos 1; Palmarito, Río San Julian, Chiquitos 3; Santa Cruz 1; Buenavista 3.—Matto Grosso, Brazil: Villa Bella de Matto Grosso (including the type) 3; Engenho do Gama, Rio Guaporé 1; Chapada 4; Corumbá 1; Urucúm 1.—Río Tapajóz: Santarém 1; Diamantina 1; Colonia do Mojuy, Santarém 1.—Peixe-Boi, Pará 1.—Mangunça Island, Maranhão 1.



**\**Tityra inquisitor erythrogenys* (Selby).<sup>1</sup> RUFOUS-CHEEKED TITYRA.**

*Psaris erythrogenys* SELBY, Zool. Journ., 2, No. 8, p. 483, April, 1826—"Pernambuco," errore; we suggest Cayenne, French Guiana<sup>2</sup> (type in Paris Museum examined; =adult female); SWAINSON, Natur. Libr., Orn., 10, (Flycatchers), p. 82, pl. 3, 1838 (descr. and figure of type).

*Tityra inquisitrix* (not *Lanius inquisitor* LICHTENSTEIN) SCLATER, P.Z.S. Lond., 25, p. 71, 1857—part, Cayenne and Bogotá.

*Tityra inquisitor* SCLATER, Cat. B. Brit. Mus., 14, p. 331, 1888—part, spec. b,c,g, Cayenne and Bogotá.

*Tityra erythrogenys* BERLEPSCH and HARTERT, Nov. Zool., 9, p. 55, 1902—Río Catañapa, Perico, and Maipures, Río Orinoco, and Suapure, Caura, Venezuela (crit.; spec. examined); BEEBE, Zoologica (N.Y.), 1, p. 94, 1909—La Brea, Orinoco Delta; (?) SNETHLAGE, Bol. Mus. Goeldi, 8, p. 348, 1914—part, Rio Jamundá (Faro).

<sup>1</sup>*Tityra inquisitor erythrogenys* (SELBY): Similar to *T. i. inquisitor* in having only the extreme base of the tail white and no white apical margin, and the cheeks and auriculars black in the male sex; but smaller; male with less white on the hind neck; female with back clear pale gray (without any brownish suffusion), more or less spotted with black, and neither throat nor chest tinged with buffy.

Specimens from various parts of Venezuela and Bogotá skins agree with those from the Guianas. The amount of spotting in the females is subject to much individual variation, some examples being heavily marked with black above, while others show just a few narrow streaks on the anterior portion of the back.

## MEASUREMENTS

Adult males	Wing	Tail
One from Pied Saut, Oyapock, French Guiana	101	65
One from near Paramaribo, Surinam	98	62
One from La Bomba, Cuyuni River, Venezuela	103	68
Four from the Caura River, Venezuela	102, 105, 107, 107	65, 65, 65, 67
One from Maipures, Orinoco River, Venezuela	100	63
One from San Esteban, Carabobo, Venezuela	101	64
One from Sab. Mendoza, Mérida, Venezuela	104	66
One from "Bogotá," Colombia	105	64
Adult females		
One from "Pernambuco" (type)	94	62
Two from French Guiana	95, 99	64, 64
Two from Paramaribo, Surinam	97, 99	63, 63
One from La Bomba, Cuyuni, Venezuela	103	66
Two from Caura River, Venezuela	99, 101	64, 66
Three from the Orinoco River (Perico, Maipures, and Río Catañapa)	99, 100, 106	62, 66, 68
Two from El Trompillo, Carabobo	98, 102	61, 68
One from Lagunillas, Mérida	99	—
Three from "Bogotá," Colombia	99, 100, 102	60, 62, 65

Material examined.—French Guiana: Cayenne 1; Pied Saut, Oyapock 2.—Dutch Guiana: Near Paramaribo 3.—Venezuela: Caura District, Suapure 2, El Llual 4, San Pedro 1; La Bomba, Cuyuni River 2; Orinoco River, Maipures 3, Río Catañapa 1, Perico 1; San Esteban, Carabobo 4; El Trompillo, Carabobo 2; Lagunillas, Mérida 1; Sabana de Mendoza, Mérida 1.—Colombia: Bogotá 6.

<sup>2</sup>The type is quite distinct from specimens recently collected in the neighboring states of Bahia and Piahy, but agrees in every particular with females from French Guiana. It was obtained in exchange from a dealer, J. Verreaux, whose localities are not always reliable, and I have little doubt it really came from Cayenne, and *not* from Pernambuco, where either *T. i. inquisitor* or the doubtfully separable *T. i. selbii* (see above, p. 217) may be expected to occur.

*Tityra inquisitor erythrogenys* HELLMAYR, Nov. Zool., 13, pp. 327, 328, 1906—part, "Pernambuco," Surinam, Venezuela, and Colombia (crit.); BERLEPSCH, l.c., 15, p. 140, 1908—Cayenne; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 32, 1912—part, diag. and habitat, excl. Pará localities and Archidona, Ecuador.

*Erator inquisitor erythrogenys* CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 251, 1916—Caicara and above the falls of Atures, Orinoco Region, Venezuela.

Range: French, Dutch, and (?) British Guiana; Venezuela (Orinoco Valley and its tributaries; San Esteban and El Trompillo, Carabobo; Lagunillas and Sabana de Mendoza, Mérida) and west to the eastern base of the Eastern Andes of Colombia ("Bogotá").

1: Colombia ("Bogotá" 1).

***Tityra inquisitor buckleyi* Salvin and Godman.<sup>1</sup> BUCKLEY'S TITYRA.**

*Tityra buckleyi* SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 120, Dec., 1890—Yanayacu, eastern Ecuador (type in British Museum examined; =adult male); HELLMAYR, P.Z.S.Lond., 1911, p. 1143 (in text)—Ecuador (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 490, 1917—Florencia, Caquetá, Colombia (spec. examined).

*Tityra albitorques* (not of DUBUS) ALLEN, Auk, 5, p. 287, (in text), 1888—Ecuador (crit.); idem, Bull. Amer. Mus. N.H., 2, p. 73, 1889—Río Napo (spec. examined).

*Tityra inquisitor* (not *Lanius inquisitor* LICHTENSTEIN) SCLATER, Cat. B. Brit. Mus., 14, p. 331, 1888—part, spec. h, Yanayacu; GOODFELLOW, Ibis, 1901, p. 710—Archidona, Ecuador (spec. in Tring Museum examined; one female).

<sup>1</sup>*Tityra inquisitor buckleyi* SALVIN and GODMAN: Nearest to *T. i. erythrogenys* and with white restricted to extreme base of rectrices, but male with cheeks and auriculars white as in *T. i. albitorques*; female not distinguishable with certainty from *erythrogenys*.

The type has the rump decidedly white in contrast to the pallid neutral gray of the back and tail coverts, while in two other males, one from the Río Napo, the other from Florencia, Caquetá, the dorsal surface is uniform pale grayish as in the allied races. The tail, as a rule, is entirely black except for the extreme base; but the Río Napo male has distinct, though small, white apical spots on the three outer rectrices and more white at the base of the outer web of the penultimate tail feather, thus diverging in the direction of *T. i. albitorques*. The white nuchal zone appears to be slightly more pronounced than in *T. i. erythrogenys*. Two females do not differ, so far as I can see, from the average of *erythrogenys*, the back being pale neutral gray, heavily spotted with black. More material of this little-known form, which combines the tail markings of *erythrogenys* with the white auriculars of *albitorques* in the male sex, is urgently desired.

MEASUREMENTS

	Wing	Tail
One adult male from Yanayacu, Ecuador (type)	103	62
One male (first annual) from Río Napo, Ecuador	104	66
One adult male from Florencia, Caquetá, Colombia	102	63
One adult female from Florencia, Colombia	102	65
One adult female from Archidona, Ecuador	96	62

*Tityra inquisitor erythrogenys* (not *Psaris erythrogenys* SELBY) HELLMAYR, Nov. Zool., 13, p. 328, 1906—part, Archidona; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 32, 1912—part, Archidona.

*Erator buckleyi* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 540, 1926—Río Napo, Ecuador (crit.).

Range: Southeastern Colombia (Florencia, Caquetá) and eastern Ecuador (Yanayacu; Archidona; Río Napo).

**\**Tityra inquisitor albitorques* Dubus.<sup>1</sup> WHITE-COLLARED TITYRA.**

*Tityra albitorques* DUBUS, Bull. Ac. Roy. Belg., 14, Part 2, p. 104, 1847—Peru; LAFRESNAYE, Rev. Zool., 11, p. 244, 1848 (crit.); SCLATER, P.Z.S. Lond., 23, p. 150, 1855—Bogotá; idem, l.c., 25, p. 71, 1857—Peru and Bogotá (monog., excl. syn. *P. fraserii*); SCLATER and SALVIN, l.c., 1867, pp. 751, 757—Chyavetas, Peru (spec. examined); PELZELN, Orn. Bras., 2, p. 120, 1868—part, Barra = Manáos (spec. in Vienna Museum examined); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 284—Chyavetas, Peru; idem, l.c., 1879, p. 517—Remedios, Colombia; SALVIN and GODMAN, Ibis, 1880, p. 169—Valencia, Santa Marta; TACZANOWSKI, P.Z.S.Lond., 1882, p. 23—Yurimaguas, Peru; idem and BERLEPSCH, l.c., 1883, p. 559—

<sup>1</sup>*Tityra inquisitor albitorques* DUBUS is distinguished from the allied races by the combination, in the male sex, of the white cheeks and auriculars with an extensive white basal area of the tail, occupying about three-fourths of its length and separated from the very conspicuous white apical margin by a broad black subterminal band of about 20 mm. width; while the female, in addition to the tail markings, may be recognized from *erythrogenys* and *buckleyi* by having the back unspotted and slightly washed with brownish.

The distribution of this form is very peculiar, it having been found both in western Ecuador and eastern Peru, whereas eastern Ecuador is tenanted by another closely allied race (*T. i. buckleyi*). A single adult male secured by E. Bartlett at Chyavetas, the only one seen from Peru, appears to me indistinguishable from others taken in western Ecuador and various parts of Colombia and, what is even more surprising, a couple of adults obtained by J. Natterer at Manáos on July 21, 1833 are also referable to the same form. The male has the white auriculars, the female the plain brownish gray back, and both the distinctly bicolored tail with white apical margin, exactly like specimens from the Pacific coast of Colombia. More material from northern Brazil is urgently needed to explain this extraordinary range.

MEASUREMENTS

Adult males	Wing	Tail
One from Chyavetas, Peru	106	67
One from Manáos, Brazil	106	68
One from Milagro, prov. Guayas, Ecuador	106	67
Four from Chocó, western Colombia	103, 105, 106, 107	64, 64, 67, 67
One from Fundación, Santa Marta	104	63
Adult females		
One from Manáos, Brazil	95½	65
Two from Chocó, western Colombia	100, 103	64, 64
Two from Fundación, Santa Marta	99, 100	60, 61
One from Guayaquil, Ecuador	102	62

Material examined.—Peru: Chyavetas 1.—Brazil: Manáos 2.—Ecuador: Guayaquil 1; Milagro 1.—Colombia: Nóvita 1; Noanamá 1; El Tigre, Río Tamaná 2; Quibdó 2; Gamarra, lower Magdalena 1; Fundación, Santa Marta 4; "Bogotá" 12.



Guayaquil, Ecuador; TACZANOWSKI, Orn. Pér., 2, p. 355, 1884—Chyavetas and Yurimaguas, Peru; SCLATER, Cat. B. Brit. Mus., 14, p. 332, 1888—part, spec. n-x, Remedios, Bogotá, Valencia, Balzar (Ecuador), and Chyavetas; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 119, 1890—part, South American references and localities.

*Tityra albitorques albitorques* HELLMAYR, P.Z.S.Lond., 1911, p. 1142—Nóvita, Noanamá, and El Tigre, Río Tamaná, Chocó, Colombia (crit.).

*Erator albitorques* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 863, 1907—part, South American references and localities; TODD and CARRIKER, Ann. Carnegie Mus., 14, p. 323, 1922—Tucurínca and Fundación, Santa Marta, and Gamarra, Magdalena Valley, Colombia (crit.; spec. examined).

*Erator albitorques albitorques* CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 539, 1926—Bucay and Daule, Ecuador; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—Cana, Darién.

Range: Eastern Peru (Chyavetas; Yurimaguas); northern Brazil (Manáos); western Ecuador (Guayaquil; Milagro; Daule; Bucay; Balzar); Colombia (Quibdó, Nóvita, Noanamá, and El Tigre, Río Tamaná, Chocó, Pacific coast; Valencia, Tucurínca, and Fundación, Santa Marta District; Gamarra, lower Magdalena; "Bogotá" collections), north to eastern Panama (Darién).

1: Ecuador (Milagro, prov. Guayas 1).

\**Tityra inquisitor fraserii* (Kaup).<sup>1</sup> FRASER'S TITYRA.

*Psaris fraserii* KAUP, P.Z.S.Lond., 19, "1851," p. 47, pls. 37, 38, Oct., 1852—no locality given (types in Lord Derby's collection, now in the Liverpool Museum, examined).<sup>2</sup>

<sup>1</sup>*Tityra inquisitor fraserii* (KAUP) differs from *T. i. albitorques* in larger size, generally heavier bill, and in the male sex by darker gray back, decidedly grayish (instead of nearly pure white) under parts, and slightly broader black subterminal tail band. The female is even more different, having the back chiefly Verona brown and the breast tinged with grayish, while the tail is not distinctly bicolored, the basal portion being grayish and blending gradually with the blackish subapical zone. Certain specimens from Costa Rica, however, form the transition to *albitorques* in both coloration of back and pattern of tail.

Material examined.—Forty specimens from Yucatán to western Panama.

<sup>2</sup>The Liverpool Museum has three specimens, marked "type of *P. fraseri*, KAUP," none with any specified locality. Two, an adult male with spurious second primary (Derby Museum, No. 1868) and a female (D. M., No. 1868a) are typical examples of the Central American race, but the third skin, an adult male purchased of Leadbeater in 1842 and bearing the Derby Museum No. 1868b, is just as decidedly referable to the pale, small-billed *T. a. albitorques*, of northern South America. Kaup's (rather general) diagnosis might apply to either of the two males, and the measurements (wing 105-113; tail 63-70) evidently cover them both, No. 1868b corresponding to the minimum, No. 1868 to the maximum of his figures. On the other hand, the figure 32 mm., given for the length of the bill from the gape, can have been taken only from No. 1868, since the other bird (No. 1868b) barely measures 24 mm. The plates 37 and 38, without any shadow of doubt, depict the Central American form, and are faithful representations of Nos. 1868 and 1868a. Under these circumstances we feel that *P. fraseri* should be restricted to the northern form, and designate No. 1868 as the type, suggesting Vera Cruz, Mexico, as terra typica.

*Tityra albitorques* (not of DUBUS) MOORE, P.Z.S.Lond., 27, p. 56, 1859—Petén, Guatemala; SCLATER, l.c., p. 384, 1859—Playa Vicente, Vera Cruz; SCLATER and SALVIN, Ibis, 1860, p. 400—Choctum, Guatemala; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 295, 1862—Lion Hill, Panama; idem, l.c., 8, p. 182, 1867—Greytown, Nicaragua; idem, l.c., 9, p. 116, 1868—Pacuaré, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 332, 1888—part, spec. a-m, Oaxaca (Mexico), Choctum and Vera Paz (Guatemala), Tizimín (Yucatán), British Honduras, Bebedero (Costa Rica), Bugaba (Chiriquí); SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 119, 1890—part, Mexican and Central American references and localities.

*Tityra fraseri* SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 757—Mexico and Central America (crit.); SALVIN, l.c., 1870, p. 199—Bugaba, Panama; SCLATER and SALVIN, l.c., p. 837—Honduras; BOUCARD, l.c., 1883, p. 449—Yucatán; RIDGWAY, Proc. U.S.Nat. Mus., 10, p. 589, 1887—Segovia River, Honduras; CHERRIE, Expl. Zool. in Costa Rica 1890-91, p. 36, 1893—Lagarto, Costa Rica.

*Tityra albitorques fraseri*<sup>1</sup> RIDGWAY, Proc. U.S.Nat. Mus., 5, p. 397, 1882—La Palma de Nicoya, Costa Rica; RICHMOND, l.c., 16, p. 508, 1893—Río Escondido, Nicaragua; BANGS, Bull. Mus. Comp. Zool., 39, p. 149, 1903—Yaruca, Honduras; idem, Auk, 24, p. 303, 1907—Paso Real, Costa Rica.

*Erator albitorques* SUMICHRAST, Mem. Boston Soc. N.H., 1, p. 558, 1869—Vera Cruz; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 863, 1907—part, Mexican and Central American references and localities; FERRY, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 269, 1910—Guayabo, Costa Rica.

*Erator albitorques fraseri* DEARBORN, Field Mus. Nat. Hist. Pub., Orn. Ser., 1, p. 100, 1907—Los Amates, Guatemala; CARRIKER, Ann. Carnegie Mus., 6, p. 663, 1910—Guayabo, Juan Viñas, Pozo Azul de Pirris, Bolson, Palo Verde, Guapiles, Bebedero, and El Pozo de Térraba, Costa Rica; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 458, 1928—Almirante, Chiriquicito, and Boquete Trail, Panama.

Range: Southeastern Mexico, in states of Vera Cruz, Oaxaca, Tabasco, Chiapas, and Yucatán, and southward through Guatemala, British Honduras, Honduras, Nicaragua, and Costa Rica to western Panama.<sup>2</sup>

6: Mexico (Yucatán 1); Guatemala (Los Amates 1); Costa Rica (Jiménez 1, Limón 1, Lagarto 1, Guayabo 1).

<sup>1</sup>Variouly spelled *fraseri*, *fraserii*, and *frazieri*.

<sup>2</sup>Owing to lack of material I am unable to indicate the exact eastern limit of the range. The most easterly localities whence specimens have been available for examination are Bugaba, Chiriquí and Natá, Coclé, Panama.

**Tityra leucura** Pelzeln.<sup>1</sup> WHITE-TAILED TITYRA.

*Tityra (Erator) leucura* PELZELN, Orn. Bras., 2, pp. 120, 183, 1868—Salto do Girão, Rio Madeira, Brazil (type in Vienna Museum examined).

*Tityra leucura* HELLMAYR, Nov. Zool., 17, p. 312, 1910—Salto do Girão (crit.).

Range: Western Brazil, on the banks of the upper Rio Madeira (Salto do Girão).

Genus **HAEMATODERUS** Bonaparte.

*Haematoderus* BONAPARTE,<sup>2</sup> Ateneo Italiano, 2, No. 11, p. 314 (=Conspectus Voluc. Anisod., p. 4), 1854—type by monotypy [*Haematoderus*] *militaris* "Gm."<sup>3</sup> = *Coracina militaris* SHAW.

**Haematoderus militaris** (Shaw). CRIMSON FRUIT-CROW.

*Coracina ? militaris* SHAW, Mus. Lever., No. 2, p. 61, with col. plate, 1792—Cayenne; LATHAM, Ind. Orn., Suppl., p. XXVII, 1801—Cayenne (ex SHAW).

*Ampelis militaris* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 164, 1817—based on *Coracina militaris* LATHAM and "Le Grand Cotinga" LEVAILLANT, Hist. Nat. Ois. Nouv. et Rares Amér. et Indes, 1, p. 56, pl. 25 (adult), 26 (young), 1801, French and Dutch Guiana.

*Querula rubra* VIEILLOT, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 768, 1822—based on *Coracina militaris* LATHAM and "Le Grand Cotinga" LEVAILLANT, French and Dutch Guiana.

<sup>1</sup>*Tityra leucura* PELZELN is known from a single male, molting from the juvenile into the first annual plumage. It is most nearly related to *T. inquisitor albitorques* and resembles it in the white cheeks and auricular region; but the upper parts and breast are much more strongly tinged with gray, without any white on the hind neck, and the tail lacks the black subterminal band. The rectrices are pale gray, with the base of the inner webs white for about twenty millimeters (as in *T. i. inquisitor*), and at the tips broadly, though not abruptly, margined with white. The outermost pair shows a narrow blackish shaft streak in the second third of the inner web, and a similar, but smaller spot exists near the base of the central rectrix. The coloration of the tail gives an abnormal impression, and may be due to the absence of melanin in the pigment cells during the process of growth. The bill, too, appears to have been retarded in its development. It is only one-third the size of the allied species and, instead of black, dark horn brown, paler below. The top of the head is mainly black, with slight metallic gloss, though on the forehead, superciliary region, and hind crown a number of the hazel brown juvenile feathers may yet be seen. The second primary, as is also the case in the first annual plumage of the allied species, is fully developed and very nearly as long as the third.

Additional material is required to establish the status of this alleged species. Measurements of the type: Wing 101; tail 63; bill 16½.

<sup>2</sup>*Haematoderus* BONAPARTE (Ann. Sci. Nat., (4), Zool., 1, p. 134, 1854) is a pure nomen nudum.

<sup>3</sup>There being no "*militaris* GMELIN," the generic name is almost unidentifiable. CABANIS and HEINE (Mus. Hein., 2, p. 107, 1859) have, however, used it in connection with *Coracina militaris* LATHAM [=SHAW].



*Querula purpurea* LESSON, Traité d'Orn., p. 362, end of 1830—based on *Coracina militaris* SHAW and LEVAILLANT'S "Le Grand Cotinga" (excl. syn. *Ampelis phoenicea*).

*Coracina militaris* SCHOMBURGK, Reisen Brit. Guiana, 2, pp. 143, 147, 1848—Canuku Mts. (descr. of female); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 420, 1856 (descr.).

*Threnoedus militaris* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 690, 1848—Canuku Mountains.

*Haematoderus militaris* BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; CABANIS and HEINE, Mus. Hein., 2, p. 107, 1859—"Venezuela"; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—Cametá, Rio Tocantins; PELZELN, Orn. Bras., 2, p. 134, 1868—Pará; SALVIN, Ibis, 1885, p. 305—British Guiana (ex SCHOMBURGK); SCLATER, Cat. B. Brit. Mus., 14, p. 395, 1888—Cayenne and "Amazons;" HELLMAYR, Nov. Zool., 12, p. 295, 1905—Igarapé-assú, Pará (crit., plumages); IHERING and IHERING, Cat. Faun. Braz., 1, p. 315, 1907—range; BERLEPSCH, Nov. Zool., 15, p. 143, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 173, 1910—Surinam; HELLMAYR, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 91, 1912—Pará, Igarapé-assú; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 358, 1914—range; CHUBB, Birds Brit. Guiana, 2, p. 306, 1921—Tiger Hill, Demerara River and Canuku Mountains.

Range: French, Dutch, and British Guiana, and northeastern Brazil, in state of Pará (Pará; Igarapé-assú; Cametá, Rio Tocantins).<sup>1</sup>

### Genus *QUERULA* Vieillot.

*Querula* VIEILLLOT, Analyse Nouv. Orn. Élém., p. 37, 1816—type by monotypy "Piauhau" BUFFON = *Muscicapa purpurata* P. L. S. MÜLLER.

*Threnoedus* GLOGER, Gemeinnütz. Hand- und Hilfsbuch Naturg., p. 319, 1841—new name for *Querula* VIEILLLOT.

### \**Querula purpurata* (Müller). PURPLE-THROATED FRUIT-CROW.

*Muscicapa purpurata* P. L. S. MÜLLER, Natursyst., Suppl., p. 169, 1776—based on DAUBENTON, Pl. Enl. 381, Cayenne.

*Muscicapa cruenta* BODDAERT, Tabl. Pl. Enl., p. 23, 1783—based on DAUBENTON, Pl. Enl. 381; "Le Piauhau" BUFFON; and BRISSON (Orn., 2, p. 386), Cayenne.

*Muscicapa rubricollis* GMELIN, Syst. Nat., 1, (2), p. 933, 1789—based on BUFFON, DAUBENTON, and BRISSON, Cayenne.

*Muscicapa porphyrobroncha* SHAW (and NODDER), Natur. Misc., 2, No. 9, pl. 63 (=male), 1791—Cayenne.

<sup>1</sup>A single adult from Pará differs somewhat from Cayenne specimens, but owing to the excessive rarity of the species I have not been able to examine a satisfactory series. Its plumages are still imperfectly understood.

Material examined.—Cayenne 2; Surinam 1; Igarapé-assú, Pará 1.

*Querula rubricollis* VIEILLOT (and OUDART), Galerie Ois., 1, (2), p. 181, pl. 115 (=male), 1823; DESCOURTILZ, Orn. Brés., p. 23, pl. 25, fig. 2, circa 1856—"Bahia," "Maranhão," and Pará; SCLATER, P.Z.S.Lond., 25, p. 265, 1857—Rio Javarri and "Tunantins" [=Tonantins], Rio Solimões; BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne.

*Ampelis rubricollis* SCHOMBURGK, Reisen Brit. Guiana, 1, p. 183, 1847—Barima River.

*Threonoedus rubricollis* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 691, 1848—coastal forests and Canuku Mountains.

*Querula cruenta* SCLATER, P.Z.S.Lond., 23, p. 153, 1855—Bogotá; CASSIN, Proc. Ac. Nat. Sci. Phila., 1860, p. 143—Turbo, Colombia; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 7, p. 296, 1862—Lion Hill, Panama; idem, l.c., 9, p. 117, 1868—Angostura and Payua, Costa Rica; SCLATER and SALVIN, P.Z.S.Lond., 1864, p. 362—Isthmus of Panama; idem, l.c., 1866, p. 191—upper Ucayali; idem, l.c., 1867, p. 580—Capim River; PELZELN, Orn. Bras., 2, p. 134, 1868—Forte do Rio Branco and Serra Caramán, Rio Branco, and Pará; SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 285—upper Ucayali and Rio Javarri; idem, l.c., 1879, p. 520—Pocuné and Remedios, Colombia; TACZANOWSKI, Orn. Pér., 2, p. 389, 1884—Río Javari; SALVIN, Ibis, 1885, p. 305—Bartica Grove, British Guiana; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 118, 1887—Angostura and Pacuaré, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 396, 1888—Demerara, Bartica Grove, Cayenne, Chamicuros, Río Ucayali, Sarayacu and Balzar (Ecuador), Medellín, Neche, Bogotá, Panama, Montaña del Vermejo (Veragua), and Angostura (Costa Rica); RIKER and CHAPMAN, Auk, 8, p. 25, 1891—Santarém, Rio Tapajóz; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 144, 1891—Costa Rica, Panama, and South America; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Punta de Sabana, Darién; idem, l.c., No. 362, p. 18, 1899—Río Peripa, Ecuador; BANGS, Proc. New Engl. Zool. Cl., 2, p. 23, 1900—Loma del León, Panama; MÉNÉGAUX, Bull. Mus. Hist. Nat., 10, p. 181, 1904—Camopi, French Guiana; SNETHLAGE, Journ. Orn., 55, p. 292, 1907—Pará and Ourém, Rio Guamá; PENARD and PENARD, Vog. Guyana, 2, p. 174, 1910—Surinam; MÉNÉGAUX, Rev. Franç. d'Orn., 2, p. 8, 1911—Pisana, at junction of Mixiollo and Huallaga rivers, Peru.

*Querula purpurata* CASSIN, Proc. Ac. Nat. Sci. Phila., 1864, p. 256 (crit.); BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902—Suapure and La Pricion, Caura, Venezuela; BERLEPSCH, l.c., 15, pp. 143, 319, 1908—Ipousin, R. Approuague, Cayenne, and Camopi, French Guiana; IHERING and IHERING, Cat. Faun. Braz., 1, p. 315, 1907—Santarém; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 875, 1907—Costa Rica to the Amazon Valley (monog.); SNETHLAGE, Journ. Orn., 56, p. 13, 1908—Cachoeira, Rio Purús; CARRIKER, Ann. Carnegie Mus., 6, p. 661, 1910—Caribbean lowlands of Costa Rica (habits); HELLMAYR, P.Z.S.Lond., 1911, p. 1148—Noanamá, Sipí, and Nóvita, Pacific Colombia; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, pp. 36, 91, 1912—Ipitanga, Rio Acará, and Pará localities; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 358, 1914—Pará, Ananindeua, Benevides, Peixe-Boi, Rio Guamá (Ourém), Cussary, Rio

Purús (Cachoeira); CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 255, 1916—Caura River; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 500, 1917—Salaqui, Chocó, Alto Bonito, Nóvita, Buenaventura, San José, Barbacoas, Puerto Valdivia, Puerto Berrio, and La Morelia, Colombia; STONE, Proc. Ac. Nat. Sci. Phila., 70, p. 270, 1918—Gatún, Panama; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—near Paramaribo, Lelydorp, Javaweg, and Rijsdijkweg, Surinam; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Talamanca, Sipurio, and Siquirres, Costa Rica; CHUBB, Birds Brit. Guiana, 2, p. 308, 1921—numerous localities; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 553, 1926—Bucay, Esmeraldas, and Río Suno, Ecuador; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 458, 1928—Almirante, Panama; STONE, Proc. Ac. Nat. Sci. Phila., 80, p. 169, 1928—Castanhal, Pará; HELLMAYR, Field Mus. Nat. Hist., Zool. Ser., 12, p. 345, 1929—Santo Antonio (Bôa Vista), Goyaz; GRISCOM, Bull. Mus. Comp. Zool., 69, p. 181, 1929—El Real and Cana, Darién.

Range: Tropical Zone of Caribbean Costa Rica, Panama, Colombia (except Santa Marta region), and Ecuador; eastern Peru; the whole of the Amazon Valley east to Pará; French, Dutch, and British Guiana, and eastern Venezuela (Caura Valley).<sup>1</sup>

14: Costa Rica (Talamanca 1, Mouth of Río Matina 1); Veraguas (unspecified 1); Colombia (Alto Bonito 1, San José 1); Dutch Guiana (Paramaribo 1, Javaweg 1); British Guiana (Demerara River 2); Brazil (Conceição, Rio Branco 2; Serra Grande, Rio Branco 1; Santo Antonio, lower Tocantins, Goyaz 1; Magoary, Pará 1).

### Genus **PYRODERUS** Gray.

*Pyroderus* GRAY, List Gen. Birds, p. 38, 1840—type by orig. desig. *Coracias scutata* SHAW.

#### \**Pyroderus scutatus scutatus* (Shaw). SCUTATED FRUIT-CROW.

*Coracias scutata* SHAW, Mus. Lever., No. 4, p. 199, with col. plate, 1792—"native country . . . not certainly known"; idem, Gen. Zool., 7, (2), p. 401, 1809—(reprint) "native region supposed to belong to South America"—southeastern Brazil accepted as type locality.

*Coracina rubricollis* VIEILLLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 7, 1817—"Brésil" (type in Paris Museum).

*Ampelis sanguinicollis* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 56, 1823—based on AZARA, No. 56 (ex NOSEDA), Paraguay, and TEMMINCK, Pl. Col., pl. 40, Brazil.

*Coracina scutata* TEMMINCK, Nouv. Rec. Pl. Col., livr. 7, pl. 40, 1820—Brazil; WIED, Beitr. Naturg. Bras., 3, (1), p. 406, 1830—southeastern Brazil<sup>2</sup>

<sup>1</sup>Sixty-five specimens from the whole range examined.

<sup>2</sup>Specimens were taken at Fazenda Tiririca, Rio de Janeiro and Villa Nova de Benevente, Espírito Santo (see WIED, Reise Bras., 4to ed., 1, pp. 72, 178, 1820).



(habits); LAFRESNAYE, Rev. Zool., 9, p. 275, 1846—Brazil (crit.); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 417, 1856—Nova Friburgo, Rio and Lagoa Santa, Minas Geraes; idem, Abhandl. Naturf. Ges. Halle, 3, "1855," pp. 191-212, pl. 8, 1856 (anatomy); DESCOURTILZ, Ornith. Brés., p. 24, pl. 26, fig. 2, circa 1856—Brazil (habits).

*Pyroderus scutatus* CABANIS and HEINE, Mus. Hein., 2, p. 109, 1859—Brazil; PELZELN, Orn. Bras., 2, p. 135, 1868—Registo do Sai, Rio de Janeiro, Mattodentro, Ypanemá and Rio Paraná (São Paulo), Curytiba (Paraná); REINHARDT, Vid. Medd. Naturhist. Foren., 1870, p. 315—near Lagoa Santa and Uberaba, Minas Geraes; HAMILTON, Ibis, 1871, p. 306—São Paulo (habits); BERLEPSCH, Journ. Orn., 21, p. 267, 1873—Blumenau, Santa Catharina; CABANIS, l.c., 22, p. 90, 1874—Cantagallo, Rio; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 141, 1885—Taquara and Arroio Grande, Rio Grande do Sul; SCLATER, Cat. B. Brit. Mus., 14, p. 397, 1888—Brazil; IHERING, Anuario Est. Rio Grande do Sul, 16, p. 128, 1899—[Taquara do] Mundo Novo; idem, Rev. Mus. Paul., 3, p. 217, 1899—São Paulo; idem, l.c., 4, p. 157, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 315, 1907—Campos do Jordão (São Paulo), Rio Doce (Espírito Santo), and Ourinho (Paraná); DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, pp. 313, 431, 1910—Santa Ana, Misiones; idem, Bol. Soc. Physis, 1, p. 350, 1914—Misiones; BERTONI, Faun. Parag., p. 58, 1914—Alto Paraná, Paraguay; MÉNÉGAUX, Rev. Franç. d'Orn., No. 115, p. 334, 1918—Villa Lutetia, near San Ignacio, Misiones; REBORATTI, El Hornero, 1, p. 193, 1918—Concepción, Corrientes; FIEBRIG, l.c., 2, p. 206, 1921—Paraguay; LIMA, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia; SZOLCMAN, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 180, 1926—Invernadinha and Vermelho, Paraná.

Range: Wooded region of southeastern Brazil, from southern Bahia and Minas Geraes south to Rio Grande do Sul, and adjacent sections of Paraguay and Argentina (prov. Corrientes and terr. Misiones).<sup>1</sup>

3: Argentina, Misiones (Río Paraná 1, Puerto Segundo 1, Eldorado 1).

**\**Pyroderus scutatus granadensis* (Lafresnaye).<sup>2</sup> EAST COLOMBIAN FRUIT-CROW.**

*Coracina granadensis* LAFRESNAYE, Rev. Zool., 9, p. 277, 1846—"Nouvelle Grenade"—Bogotá.

<sup>1</sup>The present form has nowhere been found outside the area above circumscribed, and Messrs. Penard (Vog. Guyana, 2, p. 174, 1910) are undoubtedly mistaken in including it in the fauna of Surinam.

Nineteen specimens from Brazil and Misiones examined.

<sup>2</sup>*Pyroderus scutatus granadensis* (LAFRESNAYE): Very similar to *P. s. scutatus*, but decidedly smaller, with much shorter bill and tarsi; rufous brown pectoral spots as a rule somewhat paler.

A single adult from Táchira and three specimens obtained by S. Briceño near Mérida appear to me indistinguishable from Bogotá skins.

Material examined.—Colombia: Bogotá 5, Bucaramanga 1.—Venezuela: San Cristóbal, Táchira 1; near Mérida 3.

*Pyroderus grenadensis* SCLATER, P.Z.S.Lond., 23, p. 153, 1855—Bogotá.

*Pyroderus grenadensis* CABANIS and HEINE, Mus. Hein., 2, p. 109, 1859—New Granada; WYATT, Ibis, 1871, pp. 123, 334—Canuto, south of Ocaña, Santander, Colombia; SCLATER, Cat. B. Brit. Mus., 14, p. 398, 1888—Bogotá.

*Pyroderus scutatus grenadensis* BERLEPSCH, Journ. Orn., 32, p. 306, 1884—Bucaramanga, Santander, Colombia and Táchira, Venezuela (crit.); CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 500, 1917—La Palma and San Agustín, head of the Magdalena Valley, and Fusugasugá, Colombia.

Range: Subtropical Zone of eastern slope of Central Andes and Eastern Andes of Colombia, extending into western Venezuela (in states of Táchira and Mérida).

2: Colombia (Bogotá 2).

***Pyroderus scutatus orenocensis* (Lafresnaye). ORINOCAN FRUIT-CROW.**

*Coracina orenocensis* LAFRESNAYE, Rev. Zool., 9, p. 277, 1846—"le pays situé a l'embouchure de l'Orénoque" (type in Museum of Comparative Zoology, Cambridge examined).

*Pyroderus orenocensis* CABANIS and HEINE, Mus. Hein., 2, p. 109, 1859—"Caracas," Venezuela (spec. examined); SCLATER and SALVIN, P.Z.S. Lond., 1869, p. 252—Puerto Cabello, Venezuela; SCLATER, Cat. B. Brit. Mus., 14, p. 398, 1888—part, spec. b,c, Puerto Cabello, Venezuela; PENARD and PENARD, Vog. Guyana, 2, p. 175, 1910—Surinam (?); CHUBB, Birds Brit. Guiana, 2, p. 310, 1921—Cuyuni and Demerara rivers.

*Pyroderus scutatus orenocensis* HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 95, 1912—Paso Honda, San Esteban Valley, Carabobo, Venezuela; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 255, 1916—Altagracia, lower Orinoco.

Range: Northern Venezuela, from the state of Carabobo (Puerto Cabello; San Esteban Valley; Cumbre de Valencia) and the vicinity of Caracas south to the Orinoco Valley (Altagracia), and east into British Guiana (Cuyuni and Demerara rivers).<sup>1</sup>

**\**Pyroderus scutatus occidentalis* Chapman.<sup>2</sup> WEST COLOMBIAN FRUIT-CROW.**

*Pyroderus scutatus occidentalis* CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 631, 1914—San Antonio, Western Andes of Colombia; idem, l.c., 36, p. 500,

<sup>1</sup>Two specimens from Carabobo have the rufous color beneath somewhat darker and less extensive than two topotypes from the Orinoco, thus verging in the direction of the black-bellied *P. s. grenadensis*. One of the "Caracas" birds, however, hardly differs from the Orinoco examples.

Material examined.—Venezuela: Orinoco (including the type) 2; Altagracia, Orinoco 1; Puerto Cabello 1; San Esteban Valley 1; Cumbre de Valencia 1; "Caracas" 3.

<sup>2</sup>*Pyroderus scutatus occidentalis* CHAPMAN: Nearest to *P. s. orenocensis*, but under parts, including under wing coverts, darker, hazel rather than cinnamon

1917—Las Lomitas, San Antonio, Río Lima, Cerro Munchique, Gallera, La Florida, Miraflores, Salento, and La Frijolera, Colombia.

*Pyroderus orenocensis* (not of LAFRESNAYE) SCLATER and SALVIN, P.Z.S. Lond., 1879, p. 520—Concordia, Frontino, and Santa Elena, Colombia; SCLATER, Cat. B. Brit. Mus., 14, p. 398, 1888—part, spec. d-f, Concordia.

Range: Subtropical Zone of Western Andes and western slope of Central Andes of Colombia.

3: Colombia (San Antonio 1, Río Lima 1, Miraflores, east of Palmira 1).

***Pyroderus scutatus masoni* Ridgway.<sup>1</sup> MASON'S FRUIT-CROW.**

*Pyroderus masoni* RIDGWAY, Auk, 3, p. 333, 1886—"interior of Venezuela," errore; we suggest Pozuzo, dept. Huánuco, Peru (type in U.S. National Museum examined); CHAPMAN, Bull. Amer. Mus. N.H., 33, p. 632, 1914—Peru (crit.).

*Pyroderos granadensis* (not of LAFRESNAYE) TACZANOWSKI, Orn. Pér., 2, p. 392, 1884—Montañas del Mayo, Peru.

Range: Tropical Zone of eastern Peru, in dept. of Huánuco (Pozuzo; Cushi Libertad; Montaña del Mayo).

**Genus CEPHALOPTERUS Geoffroy Saint-Hilaire.**

*Cephalopterus* GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, pp. 235, 238, 1809—type (by monotypy and orig. desig.) *Cephalopterus ornatus* GEOFFROY SAINT-HILAIRE.

*Allicept* GISTEL, Naturg. Thierr. Höhere Schulen, p. viii, 1848—new name for *Cephalopterus* GEOFFROY SAINT-HILAIRE.

rufous; lower abdomen and under tail coverts more deeply black; upper parts, wings, and tail slightly more glossy. Wing (adult male) 230-250; tail 150-160; bill 35-38.

Material examined.—Western Andes: San Antonio 3; Río Lima 5; "Jorne," Cauca Valley 3; Alto de las Ances 1; Antioquia (unspecified) 5.—Central Andes: Miraflores 2.

<sup>1</sup>*Pyroderus scutatus masoni* RIDGWAY: Most nearly related to *P. s. occidentalis*, but rather smaller; basal portion of the red-tipped throat feathers deeper in tone; rufous area of under parts much duller, chestnut bay rather than hazel, as well as less extensive, leaving a distinct prepectoral band black; upper parts duller, lacking the iridescent gloss to the margins of the dorsal feathers. Wing 215-234; tail 138-146; bill 36-38.

This race, based on fragments attached to some ethnological specimens from an unknown locality, was at one time believed to be a native of the interior of Venezuela, until F. M. Chapman suggested its Peruvian origin. Many years previously, however, the late W. Hoffmanns had discovered its true habitat by taking specimens in August, 1903 at Cushi Libertad, alt. 1820 meters, and in March, 1904 at Pozuzo, alt. 950 meters, in the dept. of Huánuco, although this finding was never put on record.

Material examined.—Peru, dept. Huánuco: Pozuzo 1, Cushi Libertad 6 (Tring Museum and Berlepsch Collection).—Unspecified (including the type) 2.



**\*Cephalopterus ornatus ornatus** *Geoffroy Saint-Hilaire*. UMBRELLA-BIRD.

*Cephalopterus ornatus* GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, p. 238, pl. 15, 1809—Brazil;<sup>1</sup> LESSON, Traité d'Orn., livr. 3, p. 161, pl. 41, fig. 2, July, 1830—Brazil; LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 39, 1837—Bolivia; D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 296, 1839—Río Beni, Bolivia; TSCHUDI, Untersuch. Faun. Peru., Aves, p. 141, 1846—eastern Peru (anatomy); CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 691, 1848—Canuku Mts.; WALLACE, P.Z.S.Lond., 18, p. 206, 1850—opposite the mouth of the Rio Madeira, in some islands, abundant on the Rio Negro, and in the "Sohuives" [= Solimões] as far as the boundaries of Brazil (habits); SCLATER, l.c., 25, p. 18, 1857—Bogotá; idem, l.c., 25, p. 265, 1857—Rio Javari; idem, l.c., 26, p. 71, 1858—Río Napo, Ecuador; BATES, The Naturalist on the Amazon, 2, pp. 283, 387, 1863—Island of Catuá, near Ega, and Fontebôa, Rio Solimões; SCLATER and SALVIN, P.Z.S.Lond., 1866, p. 191—Rio Ucayali; idem, l.c., 1867, p. 581—wooded islands of lower Rio Negro, between Barra and the mouth of the Rio Branco, also on the banks of the Uaupés, above the cataracts; idem, l.c., p. 751—Chyavetas, Peru; PELZELN, Orn. Bras., 2, p. 135, 1868—Rio Galera, Villa Maria, Caiçara, Rio Guaporé, Engenho do Gama, São Vicente, and [Villa Bella de] Matto Grosso, Forte do Principe (Rio Madeira), Forte do Rio Branco, Rio Cauamé, and Serra Caraumán (Rio Branco); SCLATER and SALVIN, P.Z.S.Lond., 1873, p. 286—Cashiboya, Ucayali, and Chyavetas, Peru; TACZANOWSKI, l.c., 1874, p. 541—Monterico, Ayacucho, Peru; PELZELN, Ibis, 1875, p. 331—"Spanish Guiana" = Bogotá; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 618—Tilotilo and Apolobamba, Bolivia; TACZANOWSKI, l.c., 1882, p. 24—Huambo, Peru; idem, Orn. Pér., 2, p. 391, 1884—Peruvian localities; idem and BERLEPSCH, P.Z.S.Lond., 1885, pp. 94, 121—Mapoto, Ecuador; SALVIN, Ibis, 1885, p. 306—British Guiana (ex SCHOMBURGK); SCLATER, Cat. B. Brit. Mus., 14, p. 399, 1888 (monog.); BERLEPSCH and STOLZMANN, P.Z.S.Lond., 1896, p. 370—Chanchamayo and Borgoña, dept. Junín, Peru; idem, Orn., 13, p. 114, 1906—Río Cadena, dept. Cuzco, Peru; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 18, 1899—Río Santiago, San José, and Méndez, Ecuador; BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902—Samborge and Nericagua, Río Orinoco, Venezuela; IHERING and IHERING, Cat. Faun. Braz., 1, p. 316, 1907 (range); HAGMANN, Zool. Jahrb., (Syst.), 26, p. 32, 1907—Mexiana (?); PENARD and PENARD, Vog. Guyana, 2, p. 177, 1910 (ex SCHOMBURGK); HELLMAYR, Nov. Zool., 17, p. 316, 1910, —Forte do Principe and Rio Guaporé, Rio Madeira; MÉNÉGAUX, Rev. Franc. d'Orn., 2, p. 8, 1911—Nuevo Loreto, Río Mixiollo, Peru; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 359, 1914—Rio Purús; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 256, 1916—Orinoco River, above the Río

<sup>1</sup>The describer expressly states that the specimens came from Brazil, and as no record exists for its occurrence either in French or Dutch Guiana, there is no reason to "correct" the type locality to "Cayenne," as was proposed by BERLEPSCH and HARTERT (Nov. Zool., 9, p. 58, 1902) and again by BERLEPSCH (l.c., 15, p. 143, 1908).

Meta; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 501, 1917—Florencia and Buenavista, Colombia; BANGS and NOBLE, Auk, 35, p. 453, 1918—northeast of Perico, Peru; HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 67, 1920—Chaquimayo, dept. Puno, Peru; CHUBB, Birds Brit. Guiana, 2, p. 310, 1921—British Guiana (ex SCHOMBURGK); CHAPMAN, Bull. U.S. Nat. Mus., 117, p. 101, 1921—Río Comerciato, Urubamba region, Peru; HELLMAYR, Nov. Zool., 32, p. 12, 1925—Bolivia; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 553, 1926—Zamora, Macas region, and Río Suno, eastern Ecuador; BERLIOZ, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—San José, Ecuador.

*Ampelis umbellata* SHAW (and NODDER), Natur. Misc., 21, No. 6, pl. 897, Feb., 1810—new name for *Cephalopterus ornatus* GEOFFROY SAINT-HILAIRE.

*Coracina cephaloptera* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 5, pl. B, fig. 2, 1817—Brazil; idem (and OUDART), Galerie Ois., 1, (2), p. 179, pl. 114, 1823—Brazil; TEMMINCK, Nouv. Rec. Pl. Col., livr. 43, pl. 255, 1824—Brazil.

*Coracina ornata* SPIX, Av. Bras., 1, p. 63, pl. 59, 1824—Fontebôa, Rio Solimões; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 420, 1856—Brazil.

Range: Amazonia, from the Rio Madeira, Rio Negro, and Rio Branco in northern Brazil, and the upper Orinoco in southern Venezuela west to the eastern base of the Andes in Colombia and Ecuador, south through eastern Peru to Bolivia and western Matto Grosso; casual in British Guiana (one record from the Canuku Mountains).

3: Brazil (Conceição, Rio Branco 1); Colombia (unspecified 1); Peru (Poco Tambo 1).

**\**Cephalopterus ornatus penduliger* Sclater. LONG-WATTLED UMBRELLA-BIRD.**

*Cephalopterus penduliger* SCLATER, Ibis, 1, p. 114, pl. 3, 1859—Pallatanga, Ecuador; idem, P.Z.S.Lond., 27, p. 142, 1859—Pallatanga; idem, l.c., 28, p. 67, 1860—Pallatanga; idem, l.c., p. 92, 1860—Nanegal; BERLEPSCH and TACZANOWSKI, l.c., 1883, p. 560—Chimbo; idem, l.c., 1884, p. 298—El Placer; SCLATER Cat. B. Brit. Mus., 14, p. 400, 1888—Pallatanga; HARTERT, Nov. Zool., 5, p. 490, 1898—Capal Grande, above Chimbo, and Paramba, Ecuador; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 18, 1899—Río Peripa; GOODFELLOW, Ibis, 1901, p. 715—Santo Domingo (habits); MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B65, 1911—Santo Domingo; LÖNNBERG and RENDIAL, Ark. Zool., 14, No. 25, p. 76, 1922—Río Blanco, below Mindo, and Napa road to Santo Domingo de los Colorados; CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 501, 1917—"Los Tambos" [=Los Jambos], Western Andes, Colombia; idem, l.c., 55, p. 553, 1926—Río de Oro, Manaví, and La Chonta, Ecuador.

Range: Tropical Zone of western Ecuador and western slope of Western Andes of Colombia.

1: Ecuador (Puente de Chimbo 1).

**\*Cephalopterus ornatus glabricollis Gould.** BARE-NECKED UMBRELLA-BIRD.

*Cephalopterus glabricollis* GOULD, P.Z.S.Lond., 18, "1850," p. 92, pl. 20, pub. March, 1851—Cordillera of Chiriquí; CABANIS, Journ. Orn., 9, p. 254, 1861—Costa Rica; SALVIN, P.Z.S.Lond., 1867, p. 150—Cordilleras de Tolé and Chiriquí; idem, l.c., 1870, p. 201—Calovevora and Calobre, Veragua; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 117, 1868—Dota Mts., Angostura, and San José, Costa Rica; BOUCARD, P.Z.S.Lond., 1878, p. 66—San Carlos and Volcán de Irazú, Costa Rica; ZELEDÓN, An. Mus. Nac. Costa Rica, 1, p. 119, 1887—Turrialba, Naranjo de Cartago, Jiménez, Santa María de Dota, El Zarcero de Alajuela, Costa Rica; SCLATER, Cat. B. Brit. Mus., 14, p. 400, 1888—Turrialba (Costa Rica), Cordillera de Tolé and Calovevora (Veragua); SALVIN and GODMAN, Biol. Centr. Amer., Aves, 2, p. 145, 1891—Costa Rica and Panama; BANGS, Proc. New Engl. Zool. Cl., 3, p. 51, 1902—Boquete, Panama; RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 878, 1907—highlands of Costa Rica and western Panama (monog.); CARRIKER, Ann. Carnegie Mus., 6, p. 661, 1910—La Hondura, La Vijagua, Cariblanco de Sarapiquí, Guacimo, Río Sicsola, El Hogar, Costa Rica; RENDAHL, Ark. Zool., 12, No. 8, p. 23, 1919—Siquirres, Costa Rica.

Range: Costa Rica and western Panama (Chiriquí and Veraguas).

3: Costa Rica (Limón 1, Siquirres 2).

Genus **PERISSOCEPHALUS** Oberholser.

*Gymnocephalus* (not of BLOCH and SCHNEIDER, 1801) GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, p. 237, 1809—type by orig. desig. *Corvus calvus* GMELIN.

*Perissocephalus* OBERHOLSER, Proc. Ac. Nat. Sci. Phila., 1899, p. 209—new name for *Gymnocephalus* GEOFFROY SAINT-HILAIRE preoccupied.

*Calvifrons* RICHMOND (ex DAUDIN),<sup>1</sup> Proc. U.S.Nat. Mus., 24, p. 671, 1902—type by orig. desig. *Corvus calvus* GMELIN.

**\*Perissocephalus tricolor (Müller).** CAPUCHIN-BIRD.

*Corvus tricolor* P.L.S. MÜLLER,<sup>2</sup> Natursyst., Suppl., p. 85, 1776—based on "Choucas chauve de Cayenne" DAUBENTON, Pl. Enl. 521, Cayenne; CASSIN, Proc. Ac. Nat. Sci. Phila., 1864, p. 242 (crit.).

<sup>1</sup>*Calvifrons* DAUDIN (Ann. Mus. Hist. Nat. Paris, 3, p. 146, 1804), proposed for "Chauvard," an unidentifiable vernacular name, appears to be a nomen nudum.

<sup>2</sup>Müller's name, although rejected by the late Count BERLEPSCH (Nov. Zool., 15, p. 143, 1908), is of unquestionable pertinence. It was obviously based on Daubenton's plate 521. This figure shows indeed a greenish tinge on the upper parts, which accounts for Müller's misleading expression: "die Hauptfarbe ist grün."



*Corvus calvus* GMELIN, Syst. Nat., 1, (1), p. 372, 1788—based on DAUBENTON, Pl. Enl. 521, and BUFFON, Cayenne.

*Gymnocephalus capucinus* GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, p. 237, 1809—new name for *Corvus calvus* GMELIN; LESSON, Traité d'Orn., p. 359, pl. 41, fig. 1, end of 1830—"Guyane."

*Coracina gymnocephala* VIEILLIOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 5, 1817—French Guiana.

*Ampelis calva* LICHTENSTEIN, Verz. Dubl. Berliner Mus., p. 56, 1823—Cayenne (ex *Corvus calvus* GMELIN).

*Gymnocephalus calvus* HAHN, Vogel aus Asien, etc., Lief. 2, pl. 4, 1818—Cayenne; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 690, 1848—British Guiana; WALLACE, Trav. Amaz. and Rio Negro, p. 228, 1853—Cobati, Rio Negro; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 423, 1856—northern Brazil; BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 581—Guia, Rio Negro; PELZELN, Orn. Bras., 2, p. 135, 1868—Rio Vaupé, Forte do Rio Branco, and Rio Branco above the Cachoeira, Brazil; SALVIN, Ibis, 1885, p. 306—Bartica Grove, Camacusa, and Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 401, 1888—Cayenne, Maroni River (Surinam), Bartica Grove, Camacusa, Roraima; MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Camopi and Lunier River, French Guiana; SNETHLAGE, Journ. Orn., 55, p. 292, 1907—Monte Alegre; PENARD and PENARD, Vog. Guyana, 2, p. 176, 1910—Surinam.

*Coracina calva* SCHOMBURGK, Reisen Brit. Guiana, 1, p. 415, 1847—Nappi River, Canuku Mts. (call-note).

*Calvifrons calvus* IHERING and IHERING, Cat. Faun. Braz., 1, p. 316, 1907 (range); BERLEPSCH, Nov. Zool., 15, pp. 143, 319, 1908—Ipousin, Approuague River, Cayenne, Camopi, and Lunier River, French Guiana; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 359, 1914—Rio Jary (Santo Antonio da Cachoeira) and Monte Alegre, Brazil; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—vicinity of Paramaribo, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 313, 1921—numerous localities.

Range: French, Dutch, and British Guiana, and northern Brazil, from the confines of the Guianas south to the north bank of the lower Amazon, west to the Rio Negro.

2: British Guiana (Demerara River 2).

### Genus **GYMNODERUS** Geoffroy Saint-Hilaire.

*Gymnoderus* GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, p. 237, 1809—type by orig. desig. *Corvus nudus* GMELIN = *Gracula foetida* LINNAEUS.

### \**Gymnoderus foetidus* (Linnaeus). BARE-NECKED GRACKLE.

*Gracula foetida* LINNAEUS, Syst. Nat., 10th ed., 1, p. 108, 1758—"America, ROLANDER"; we accept Surinam as type locality (ex BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902).

*Corvus nudicollis* BODDAERT, Tabl. Pl. Enl., p. 37, 1783—based on "Le Colnud, de Cayenne" DAUBENTON, Pl. Enl. 609, Cayenne.

*Corvus nudus* GMELIN, Syst. Nat., 1, (1), p. 371, 1788—based on BUFFON and DAUBENTON, Pl. Enl. 609, Cayenne.

*Gymnoderus cayennensis* GEOFFROY SAINT-HILAIRE, Ann. Mus. Hist. Nat. Paris, 13, p. 237, 1809—new name for *Corvus nudus* GMELIN.

*Coracina gymnoder* VIEILLLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 6, 1817—"Guyane"; idem (and OUDART), Galerie Ois., 1, (2), p. 178, pl. 112, 1823—"la Guyane."

*Gymnoderus foetidus* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 691, 1848—Canuku Mountains; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 425, 1856—northern Brazil; BONAPARTE, Bull. Soc. Linn. Normandie, 2, p. 36, 1857—Cayenne; SCLATER, P.Z.S.Lond., 25, p. 265, 1857—Rio Javarri; idem and SALVIN, l.c., 1867, p. 581—right bank of lower Rio Negro; idem, l.c., 1873, p. 286—Rio Javarri; PELZELN, Orn. Bras., 2, p. 135, 1868—Villa Maria [=São Luiz de Cáceres], Rio do Cabaçal, Retiro, Caiçara, Engenho do Gama, and [Villa Bella de] Matto Grosso (Matto Grosso), Rio Guaporé and Borba (Rio Madeira), and Barra do Rio Negro; TACZANOWSKI, Orn. Pér., 2, p. 390, 1884—Rio Javarri; SALVIN, Ibis, 1885, p. 306—British Guiana (ex SCHOMBURGK); SCLATER, Cat. B. Brit. Mus., 14, p. 402, 1888—Cayenne, Surinam, Barra do Rio Negro, Caiçara, and Sarayacu, Ecuador; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—Río Beni, Bolivia; BERLEPSCH, Journ. Orn., 37, p. 303, 1889—Yurimaguas, Peru; CHAPMAN, Auk, 8, p. 26, 1891—Santarém; GOODFELLOW, Ibis, 1901, p. 714, pl. 14—Río Coca, upper Napo, Ecuador (descr. adult male); BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902—Mataben, Munduapo, and Bichaco, Río Orinoco, Venezuela; IHERING, Rev. Mus. Paul., 6, p. 435, 1905—Río Juruá; idem, Cat. Faun. Braz., 1, p. 316, 1907—Río Juruá; HELLMAYR, Nov. Zool., 14, p. 364, 1907—Humaythá, Rio Madeira; HAGMANN, Zool. Jahrb., (Syst.), 26, p. 32, 1907—Mexiana; SNETHLAGE, Journ. Orn., 55, p. 292, 1907—Pará and Mexiana; idem, l.c., 56, p. 13, 1908—Monte Verde, Río Purús; BERLEPSCH, Nov. Zool., 15, p. 143, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 178, 1910—Surinam; HELLMAYR, Nov. Zool., 17, p. 317, 1910—Calama, Rio Madeira; idem, Abhandl. Bayr. Ak. Wiss., Math.-phys. Kl., 26, No. 2, p. 120, 1912—Mexiana (ex HAGMANN); SNETHLAGE, Bol. Mus. Goeldi, 8, p. 359, 1914—Pará, Quati-purú, Río Purús (Monte Verde), Mexiana, and Monte Alegre, Brazil; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 256, 1916—Orinoco River, above the mouth of the Río Meta; BANGS and PENARD, Bull. Mus. Comp. Zool., 62, p. 72, 1918—vicinity of Paramaribo, Surinam; CHUBB, Birds Brit. Guiana, 2, p. 314, 1921—upper Takutú Mountains, Berbice River, and Canuku Mountains; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 553, 1926—eastern Ecuador; YOUNG, Ibis, 1929, p. 233—Blairmont, British Guiana.

Range: French, Dutch and British Guiana; southern Venezuela (upper Orinoco); and the whole of the Amazon Valley and its tribu-

taries from Pará west to eastern Ecuador and eastern Peru, south to western Matto Grosso and northern Bolivia.

1: Peru (Yurimaguas 1).

### Genus **PROCNIAS** Illiger.

*Procnias* ILLIGER, Prodr. Syst. Mamm. et Av., p. 228, 1811—type by subs. desig. (GRAY, List Gen. Birds, p. 34, 1840) "*P. variegatus* (L.) ILL." = *Ampelis variegata* GMELIN = *Ampelis averano* HERMANN.

*Casmarhynchos* TEMMINCK, Man. d'Orn., 2nd ed., 1, p. LXIII, 1820—type by subs. desig. (SCLATER, Cat. Birds Brit. Mus., 14, p. 403, 1888) *Ampelis variegata* GMELIN = *Ampelis averano* HERMANN.

*Casmarhynchos* TEMMINCK, Nouv. Rec. Pl. Col., livr. 9, pl. 51, 1821—type by monotypy "*Casmarhynchos variegatus*" = *Ampelis carnobarba* CUVIER.

*Averano* Anonymous, Cat. Coll. Cabinet Riocour, p. 17, 1829—type by subs. desig. (ZIMMER, Field Mus. Nat. Hist., Zool. Ser., 16, p. 12, 1926) "*Averano carunculatus*" = *Ampelis alba* HERMANN.

*Arapunga* LESSON, Traité d'Orn., livr. 5, p. 365, end of 1830—type by subs. desig. (SCLATER, Cat. Birds Brit. Mus., 14, p. 403, 1888) *Ampelis nudi-collis* VIEILLOT.

*Eulopogon* GLOGER, Gemeinütz. Hand- und Hilfsbuch Naturg., 1, p. 321, 1841—type by monotypy *Ampelis variegata* VIEILLOT (not of GMELIN) = *Ampelis carnobarba* CUVIER.

*Vavasouria* CHUBB, Bull. Brit. Orn. Cl., 40, p. 107, 1920—type by orig. desig. *Ampelis nivea* BODDAERT = *Ampelis alba* HERMANN.

*Calloprocnias* CHUBB, Bull. Brit. Orn. Cl., 40, p. 107, 1920—type by orig. desig. *Chasmorhynchus tricarunculatus* J. and E. VERREAUX.

### \**Procnias alba* (Hermann). WHITE BELL-BIRD.

*Ampelis alba* HERMANN, Tab. Affin. Anim., p. 213, note, 1783—based on "Le Guira Panga ou Cotinga Blanc" MONTBEILLARD in BUFFON, Hist. Nat. Ois., 4, p. 454, Cayenne.

*Ampelis nivea* BODDAERT, Tabl. Pl. Enl., p. 49, Dec., 1783—based on "Cotinga Blanc, de Cayenne" DAUBENTON, Pl. Enl. 793 (male), 794 (female).

*Ampelis carunculata* GMELIN, Syst. Nat., 1, (2), p. 841, 1789—based on "Le Cotinga Blanc" BRISSON (Orn., 2, p. 356) and BUFFON, Cayenne; R. H. SCHOMBURGK, Reisen Brit. Guiana and Orinoco, p. 197, 1841—junction of the Rivers Moschieba and Berbice, three days' journey above New Amsterdam, Brit. Guiana.

*Chasmarhynchus carunculatus* SCHOMBURGK, Reisen Brit. Guiana, 1, pp. 343, 430, 1847—Canuku Mountains (habits, call-note).

*Chasmarhynchus carunculatus* CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 692, 1848—Demerara, Berbice, and Canuku Mountains (habits); BURMEISTER, Syst. Übers. Th. Bras., 2, p. 427, 1856—Guyana.



*Casmarhynchus carunculata* (us) WALLACE, Travels Amaz. and Rio Negro, p. 132, 1853—"seen" at Nazaré, near Pará; C. B. BROWN, Canoe and Camp Life Brit. Guiana, p. 181, 1876—Surama Landing, Burroburro River (habits).

*Procnias nivea* LÉOTAUD, Ois. Trinidad, p. 261, 1866—"Trinidad"; SCLATER, Ibis, 1867, p. 108—occurrence in Trinidad questioned.

*Chasmorhynchus niveus* CABANIS and HEINE, Mus. Hein., 2, p. 108, 1859—Guiana; SCLATER, Cat. Coll. Amer. Birds, p. 258, 1862—Cayenne; SALVIN, Ibis, 1865, p. 92—Cayenne (descr.); SCLATER and SALVIN, P.Z.S.Lond., 1867, p. 580—Rio Negro, about twenty miles above Barra [= Manáos], also "seen" near Pará; PELZELN, Orn. Bras., 2, p. 134, 1868—Barcellos, Rio Negro; FINSCH, P.Z.S.Lond., 1870, p. 574—"Trinidad"; SALVIN, Ibis, 1885, p. 306—Bartica Grove, Merumé Mts., Atapurow River, Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 403, 1888—Cayenne, Surinam, Bartica Grove, Carimang River, Atapurow River, Merumé Mts., Roraima, "Venezuela"; IHERING and IHERING, Cat. Faun. Braz., 1, p. 316, 1907—Guiana and Lower Amazonia; BERLEPSCH, Nov. Zool., 15, p. 143, 1908—Cayenne; PENARD and PENARD, Vog. Guyana, 2, p. 179, 1910—Surinam.

*Chasmorhynchus albus* SCLATER, Ibis, 1866, p. 407—Guiana.

*Procnias alba* STRESEMANN, Nov. Zool., 27, p. 330, 1920 (crit.).

*Vavasouria alba* CHUBB, Birds Brit. Guiana, 2, p. 320, 1921—British Guiana (numerous localities).

Range: French, Dutch, and British Guiana, and adjacent parts of northern Brazil (Rio Negro).<sup>1</sup>

3: British Guiana (Demerara River 2).

**\**Procnias nudicollis* (Vieillot). NAKED-THROATED BELL-BIRD.**

*Ampelis nudicollis* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 164, 1817—"le Brésil" (descr. of male and female; types in Paris Museum examined).

*Procnias ventralis* HAHN, Vögel aus Asien, Afrika, etc., Lief. 7, pl. 2, 1820—Brazil.

*Cotinga alba* (not *Ampelis alba* HERMANN, 1783) THUNBERG, Mém. Soc. Imp. Natur. Moscou, 6, p. 177, 1823—Brazil (descr. of male).

*Casmarhynchus ecarunculatus* SPIX, Av. Bras., 2, p. 3, pl. 4, 1825—Rio de Janeiro (type in Munich Museum examined; = male); HELLMAYR, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 639, 1906 (crit.).

*Procnias nudicollis* WIED, Reise Bras., 1, p. 52 (8vo ed., p. 51), 60 (8vo ed., p. 59), 1820—Serra de Inua and Guaripana, near Rio; idem, l.c., 2, p. 158, 1821—Rio Pardo, southern Bahia; DESCOURTILZ, Orn. Brés., p. 24, pl. 27, fig. 2 (= male), circa 1856—Brazil (habits); DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 432, 1910—Puerto Bertoni, Paraguay; BERTONI, Faun. Parag., p. 58, 1914—Puerto Bertoni.

<sup>1</sup>There is no reliable record of its occurrence in Trinidad, Venezuela, or Pará.

*Casmarhynchos nudicollis* TEMMINCK, Nouv. Rec. Pl. Col., livr. 62, pl. 368 (male), 383 (female), 1825—eastern Brazil; WIED, Beitr. Naturg. Bras., 3, (1), p. 377, 1830—near Rio de Janeiro and Cabo Frio, and in Bahia at Barra da Vareda, Rio Pardo, etc.; A. DE SAINT-HILAIRE, Voyage prov. Rio de Janeiro et Minas Geraes, 1, pp. 16-17, 1830—Rio, Espirito Santo, and Minas Geraes (descr. habits); idem, Voyage distr. des Diamants et Litt. du Brésil, 1, p. 107, 1833—Fazenda d'Ocubas, Serra da Lappa, Minas Geraes; idem, Voyage aux sources du Rio San-Francisco et prov. Goyaz, 1, p. 26, 1847—between Ubá and Rio Parahyba, Rio.

*Procn[ias] araponga* ("PR. MAX" MS.) CUVIER, Régne Anim., nouv. éd., 1, p. 364, 1829—new name for TEMMINCK, Nouv. Rec. Pl. Col., pls. 368, 383, Brazil.

*Arapunga nudicollis* LESSON, Traité d'Orn., livr. 5, p. 365, end of 1830—Brazil.

*Chasmarhynchus<sup>1</sup> nudicollis* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 426—Nova Friburgo, Rio; SALVIN, Ibis, 1865, p. 91—southeastern Brazil; SCLATER, l.c., 1866, p. 407—Brazil (call-note); PELZELN, Orn. Bras., 2, p. 134, 1868—Rio de Janeiro, Mattodentro and Ypanemá, São Paulo; BURTON, Expl. Highl. Brazil, 2, p. 85, 1869—near Gouvêa, on the way from the Rio das Velhas to Diamantina, Minas Geraes; REINHARDT, Vidensk. Medd. Naturhist. Foren., 1870, p. 316—Lagôa Santa, Minas Geraes and Hytú, São Paulo (habits); HAMILTON, Ibis, 1871, p. 306—São Paulo; BERLEPSCH, Journ. Orn., 21, p. 266, 1873—Blumenau, Santa Catharina; CABANIS, l.c., 22, p. 90, 1874—Cantagallo, Rio; PELZELN, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; BERLEPSCH and IHERING, Zeits. Ges. Orn., 2, p. 141, 1885—Linha Pirajá, Rio Grande do Sul; SCLATER, Cat. B. Brit. Mus., 14, p. 404, 1888—Bahia, São Paulo, "Pelotas," Rio Grande do Sul; IHERING, Anuario Est. Rio Grande do Sul, 16, p. 128, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 218, 1899—Piracicaba and Iguapé, São Paulo; idem, l.c., 4, p. 157, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 316, 1907—Alto da Serra, São Paulo and Nova Hamburgo, Rio Grande do Sul; BERTONI, Rev. Inst. Parag., 1907, p. 5—Puerto Bertoni, Paraguay; idem, Anal. Soc. Cient. Arg., 75, p. 94, 1913—Misiones; DABBENE, Bol. Soc. Physis, 1, p. 350, 1914—Paraguay.

*Procnias averano* (not of HERMANN) HELLMAYR, Nov. Zool., 27, p. 329, 1920 (crit.).

Range: Wooded region of southeastern Brazil, from southern Bahia and Minas Geraes to Rio Grande do Sul, and adjacent parts of Argentina (Misiones) and eastern Paraguay (Puerto Bertoni).

1: "Brazil."

\**Procnias averano averano* (Hermann). MARCGRAVE'S BLACK-WINGED BELL-BIRD.

*Ampelis Averano* HERMANN, Tab. Affin. Anim., pp. 211, 214, 1783—based on "L'Averano" BUFFON (Hist. Nat. Ois., 4, p. 457, 1778) ex "Guirapunga,"

<sup>1</sup>Variously spelled *Chasmarhynchus*, *Chasmorhynchus*, and *Chasmorhynchos*.

MARCGRAVE, Hist. Nat. Bras., p. 201—northeastern Brazil (descr. of male in change of plumage).

*Ampelis variegata* GMELIN, Syst. Nat., 1, (2), p. 841, 1789—same basis; LICHTENSTEIN, Abhandl. Ak. Wiss. Berlin, Phys. Kl., for 1816-17, p. 164, 1819—note on "Guirapunga" of MARCGRAVE.

*Procnias averano averano* HELLMAYR, Field Mus. Nat. Hist. Pub., Zool. Ser., 12, p. 345, 1929—Grajahú and Tranqueira, Maranhão (crit.).

Range: Northeastern Brazil, in state of Maranhão, extending without doubt into some of the neighboring provinces.

5: Brazil, Maranhão (Grajahú 1, Tranqueira 4).

***Procnias averano carnobarba* (Cuvier).<sup>1</sup> BLACK-WINGED BELL-BIRD.**

*Ampelis carnobarba* CUVIER, Règne Animal, 4, p. 172, pl. 4, fig. 4 (=adult male), 1817—no locality stated (the type, examined in the Paris Museum, was obtained by Robin on the island of Trinidad).

*Averano carnobarba* LESSON, Traité d'Orn., livr. 5, p. 365, pl. 52, fig. 1, end of 1830—Trinidad (descr. of male and female).

*Ampelis variegata* (not of GMELIN) VIEILLOT (and OUDART), Galerie Ois., 1, (2), p. 184, 1823—no locality stated (descr. of male and female, excl. Marcgrave's account).

*Ampelis averano* (not of HERMANN) VIEILLOT (and OUDART), Galerie Ois., 1, (2), pl. 117, 1823 (=adult male).

*Procnias lumbriciferus* GISTEL, Naturg. Thierr. Höh. Schulen, p. 90, 1848—"in Wäldern Brasiliens," errore (descr. of male and female).

*Casmorhynchus variegatus* TEMMINCK, Nouv. Rec. Pl. Col., livr. 9 pl. 51 (=male), 1821—"Brésil," errore.

*Chasmorhynchus variegatus* BURMEISTER, Syst. Übers. Th. Bras., 2, p. 428, 1856 (descr.).

*Chasmorhynchus variegatus* CABANIS and HEINE, Mus. Hein., 2, p. 107, 1859—Puerto Cabello, Venezuela; SALVIN, Ibis, 1865, p. 91—"Brazil" (descr.); SCLATER, l.c., 1866, pp. 406, 407—Valencia, Venezuela and Bande de l'Est, Trinidad; SCLATER and SALVIN, P.Z.S.Lond., 1868, pp. 168, 172—forest of Casuaré, Nueva Andalucía, Venezuela; idem, l.c., 1868, p. 628—San Esteban, Venezuela; GOERING, l.c., 1869, p. 251—San Esteban; SCLATER, Ibis, 1869, p. 462—near the Arapu River, one day's journey from Mount Roraima, British Guiana (call-note); SALVIN, Cat. Strickland Coll., p. 331, 1882—Guiana, Venezuela, Trinidad; idem, Ibis, 1885, p. 306—Roraima, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 405, 1888—Roraima, San Esteban; CHAPMAN, Bull. Amer. Mus. N.H., 6, p. 47,

<sup>1</sup>*Procnias averano carnobarba* (Cuvier): Very similar to *P. averano averano*, but body plumage of adult male grayish (pale gull gray to pallid neutral gray) instead of pure white.

Material examined.—Trinidad: Heights of Aripo 12, unspecified (the type) 1.—Venezuela: San Esteban 2.—British Guiana: Roraima 2.



1894—Trinidad; idem, l.c., 7, p. 323, 1895—Caparo and Caura Valley, Trinidad; HELLMAYR, Nov. Zool., 13, p. 28, 1906—Aripo, Caparo, and Valencia, Trinidad.

*Chasmorhynchus niveus* (not *Ampelis nivea* BODDAERT) TAYLOR, Ibis, 1864, p. 88—Trinidad.

*Procnias variegata* DESCOURTILZ, Orn. Brés., p. 25, pl. 27, fig. 3 (=male), circa 1856—"Brésil" (errore); LÉOTAUD, Ois. Trinidad, p. 259, 1866—Trinidad; HELLMAYR and SEILERN, Arch. Naturg., 78, A, Heft 5, p. 165, 1912—San Esteban, Venezuela.

*Casmorhynchus variegatus* C. BROWN, Canoe and Camp Life in Brit. Guiana, p. 123, 1876—common from the Cotinga to Roraima, rare east of the Cotinga.

*Procnias carnobarba* HELLMAYR, Nov. Zool., 27, p. 330, 1920 (crit.); CHUBB, Birds Brit. Guiana, 2, p. 317, 1921—Mount Roraima and Cotinga River.

Range: Mountains of western British Guiana (from the Cotinga to Roraima, rare farther east), Trinidad, and northern Venezuela (from Sucre to Carabobo).

**\**Procnias tricarunculata* (J. and E. Verreaux). COSTA RICAN BELL-BIRD.**

*Casmorhynchus tricarunculatus* J. and E. VERREAUX, Rev. Mag. Zool., (2), 5, p. 193, 1853—"Bocos del Toro (Nouvelle Grenade)"=north side of Isthmus of Panama.

*Chasmorhynchus tricarunculatus* SALVIN, Ibis, 1865, pp. 90-95, pl. 3—Costa Rica (crit.); idem, P.Z.S.Lond., 1867, p. 150—Santiago de Veragua and Cordillera de Tolé, Veragua; idem, l.c., 1870, p. 200—Calovevora, Veragua; LAWRENCE, Ann. Lyc. Nat. Hist. N.Y., 9, p. 117, 1868—"San José," Dota, Cervantes, and Turrialba, Costa Rica; BOUCARD, P.Z.S.Lond., 1878, p. 66—Volcán de Irazú, Costa Rica; RIDGWAY, Proc. U.S.Nat. Mus., 5, p. 496, 1882—Volcán de Irazú; SCLATER, Cat. B. Brit. Mus., 14, p. 405, 1888—Costa Rica, Chiriquí, Veragua; SALVIN and GODMAN, Biol. Centr.-Amer., Aves, 2, p. 142, 1891—Costa Rica and Panama; idem, Ibis, 1892, p. 327—Matagalpa, Nicaragua; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 339, p. 6, 1899—Chiriquí; BANGS, Auk, 18, p. 365, 1901—Divala, Panama; idem, Proc. New Eng. Zool. Cl., 3, p. 51, 1902—Boquete, Chiriquí; idem, Auk, 24, p. 303, 1907—Pozo del Rio Grande, Costa Rica.

*Procnias tricarunculata* RIDGWAY, Bull. U.S.Nat. Mus., 50, Part 4, p. 883, 1907—Nicaragua to Panama (monog., full bibliography); FERRY, Field Mus. Nat. Hist., Orn. Ser., 1, p. 269, 1910—Volcán de Turrialba, Costa Rica; CARRIKER, Ann. Carnegie Museum, 6, p. 660, 1910—La Estrella, Azahar de Cartago, Turrialba, Pozo Azul de Pirris, Cariblanco de Sarapiquí, Guapiles, Irazú, El Hogar, Costa Rica; KENNARD and PETERS, Proc. Boston Soc. N.H., 38, p. 458, 1928—Almirante, Panama.

Range: Highlands of Nicaragua, Costa Rica, and Panama.

21: Nicaragua (San Rafael del Norte 4); Costa Rica (Limón 7, Volcán de Turrialba 7, Térraba 1, unspecified 2).

## FAMILY RUPICOLIDAE.

### COCKS-OF-THE-ROCK.

Genus **RUPICOLA** Brisson.

*Rupicola* BRISSON, Orn., 4, p. 437, 1760—type by monotypy "*Rupicola*" = *Pipra rupicola* LINNAEUS.

#### \**Rupicola rupicola* (Linnaeus). COCK-OF-THE-ROCK.

*Pipra rupicola* LINNAEUS, Syst. Nat., 12th ed., 1, p. 338, 1766—based on "*Rupicola*" BRISSON (Orn., 4, p. 437, pl. 34, fig. 1, 1760, "Surinam et toute la Guyane"), "The Hoopoe Hen" EDWARDS (Glean. Nat. Hist., 2, pl. 264, fig. 2, Surinam), and "*Gallus ferus saxatilis*" BARRÈRE (Essai Hist. Nat. France Équin., p. 132, "Cayenne"); we accept French Guiana as type locality.

*Pipra rubicollis* MEUSCHEN, Mus. Geversianum, p. 46, 1787—no locality stated; WALCH (Naturforscher, 11, p. 5, 1777) gives "Cayenne" for the specimen in the Gevers Collection.

*Rupicola crocea* BONNATERRE, Tabl. Enc. Méth., Orn., 1, livr. 51, p. 266, 1792—based on "Le Coq de Roche" BUFFON (Hist. Nat. Ois., 5, p. 157—"dans la montagne Luca, près d'Oyapoc, et dans la montagne Courouaye, près de la rivière d'Aprouack") and "Felsenhahn" WALCH (Naturforscher, 11, p. 5, pl. 1, 1777, "Cayenne"), French Guiana; CABANIS in SCHOMBURGK, Reisen Brit. Guiana, 3, p. 694, 1848—Canuku Mountains and Avarimatta, Wenamu River, upper Cuyuni; BURMEISTER, Syst. Übers. Th. Bras., 2, p. 437, 1856—northern districts of Brazil; GOULD, P.Z.S. Lond., 27, p. 99, 1859—"Cayenne" and Demerara (crit.); SCLATER and SALVIN, I.c., 1867, p. 580—Serra de Cobati, Rio Negro; PELZELN, Orn. Bras., 2, p. 131, 1868—Forte do São Gabriel and Cocuy, above Marabitanas, Rio Negro; SALVIN, Ibis, 1885, p. 304—Camacusa, Merumé Mts., and Atapurow River, British Guiana; SCLATER, Cat. B. Brit. Mus., 14, p. 369, 1888—Carimang River, Merumé Mts., Atapurow River, Camacusa, Demerara, British Guiana, "Cayenne," and Guá, Rio Negro; LLOYD, Timehri, (n.s.), 9, p. 231, 1895—Pirara River, British Guiana (nest and egg descr.); idem, Ibis, 1896, p. 429 (reprint); MÉNÉGAUX, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Ouanary, French Guiana (descr. of young male); PENARD and PENARD, Vog. Guyana, 2, p. 165, 1910—interior of Surinam (habits).

*Rupicola aurantia* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 29, p. 551, 1819—new name for *Pipra rupicola* LINNAEUS; "Montagne Courouaye, près de la rivière d'Aprouack," French Guiana; idem (and OUDART), Galerie Ois., 1, (2), p. 316, pl. 189, 1824—same locality; SCHOMBURGK, Naumaunia, 1, Heft 2, pp. 34-38, 1850—British Guiana (habits); DESCOURTILZ, Orn. Brés., p. 34, pl. 38, fig. 2, 1856—Brazil.

*Rupicola elegans* STEPHENS in SHAW, Gen. Zool., 13, (2), p. 257, 1826—new name for *Pipra rupicola* LINNAEUS; R. H. SCHOMBURGK, Reisen in Guiana und am Orinoko, pp. 332, 446, 1841—Canuku Range, British Guiana and mountains at the sources of the Río Padamo, Venezuela.

*Rupicola cayana* SWAINSON, Classif. Birds, 2, p. 253, 1837—based on DAUBENTON, Pl. Enl. 39, French Guiana; WALLACE, Trav. Amazon and Rio Negro, p. 474, 1853—range confined to granite formation.

*Rupicola cayanna* C. B. BROWN, Canoe and Camp Life in British Guiana, p. 288, 1876—Amailah Fall, Curiebrong River, tributary of the Potaro.

*Rupicola rupicola* BERLEPSCH and HARTERT, Nov. Zool., 9, p. 58, 1902—mountains west of Suapure, Caura River, Venezuela; BERLEPSCH, l.c., 15, pp. 142, 319, 1908—"Cayenne" and Ouanary, French Guiana; IHERING and IHERING, Cat. Faun. Braz., 1, p. 312, 1907—range; SNETHLAGE, Bol. Mus. Goeldi, 8, p. 355, 1914—Rio Negro and Matta Atraz dos Campos de Ariramba, between Rio Erepecurú and Rio Curuá do Norte, lower Amazon; CHERRIE, Mus. Brookl. Inst., Sci. Bull., 2, p. 256, 1916—about the Maipures Rapids, Orinoco River, Venezuela; CHUBB, Birds Brit. Guiana, 2, p. 293, 1921—various localities.

Range: Mountain ranges of French, Dutch, and British Guiana, southern Venezuela (Caura, Orinoco, and Padamo rivers), and northern Brazil (Rio Negro; Campos de Ariramba, north of the lower Amazon).<sup>1</sup>

3: French Guiana ("Cayenne" 1); British Guiana (Roraima 1, unspecified 1).

**\**Rupicola peruviana sanguinolenta* Gould.<sup>2</sup> BLOOD-RED COCK-OF-THE-ROCK.**

*Rupicola sanguinolenta* GOULD, P.Z.S.Lond., 27, pp. 90, 100, 1859—"Quito," Ecuador; SCLATER, l.c., 28, p. 91, 1860—Nanegal; SCLATER and SALVIN, Exotic Orn., p. 29, pl. 15, 1867—western Ecuador; idem, P.Z.S.Lond., 1879, p. 519—Concordia and Frontino, Colombia (habits; eggs descr.); SCLATER, Cat. B. Brit. Mus., 14, p. 371, 1888—"Quito," Intac, Concordia, and near Medellín; ALLEN, Bull. Amer. Mus. N.H., 2, p. 74, 1889—Milligalli; HARTERT, Nov. Zool., 5, p. 490, 1898—Milligalli; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 17, 1899—Intac and Gualea; GOODFELLOW, Ibis, 1901, p. 712—Gualea and Milligalli (habits);

<sup>1</sup>Material examined.—French Guiana: "Cayenne" 5, Ouanary 1.—British Guiana 7.—Brazil: Rio Negro (São Gabriel and Cocuy) 10.

<sup>2</sup>*Rupicola peruviana sanguinolenta*, while separated from the range of *R. p. aequatorialis* by the intervening Cauca Valley, is clearly but an intensely colored race, the gap between the two forms being to a certain extent bridged by *R. p. saturata*, of Bolivia and southern Peru.

Birds from the Western Andes of Colombia appear to be inseparable, though they average slightly darker, while the crest is often not quite so long.

Material examined.—Colombia: La Florida 1, Castilla 1, Riollima 8, San Pablo 6.—Ecuador: Gualea 8, Milligalli 7, Nanegal 1, Nono 2.



MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Mérid. Equat., 9, p. B62, 1911—San Nicolas; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 547, 1926—Guala and Milligalli.

*Rupicola peruviana* (not of LATHAM) JARDINE, Edinb. New Philos. Journ., (n.s.), 2, p. 118, 1855—part, towards base of the Andes on the western slopes, Ecuador.

*Rupicola peruviana sanguinolenta* CHAPMAN, Bull. Amer. Mus. N.H., 36, p. 497, 1917—Nóvita Trail, San Antonio, Munchique, La Florida, Gallera, and Cocal, Western Andes of Colombia; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 75, 1922—Nanegal and Milligalli, Ecuador; HELLMAYR, Nov. Zool., 32, p. 11, 1925—western Ecuador.

*Rupicola peruviana aurea* (not of CHAPMAN) HELLMAYR, Nov. Zool., 32, p. 11, 1925—Riolima, Western Andes of Colombia.

Range: Western Ecuador and Western Andes of Colombia.

6: Colombia (La Florida, west of Popayán, Cauca 1; Castilla Cauca 1); Ecuador (Nono 2; Nanegal 1; unspecified 1).

**\**Rupicola peruviana aequatorialis* Taczanowski.<sup>1</sup> EQUATORIAL COCK-OF-THE-ROCK.**

*Rupicola peruviana aequatorialis* TACZANOWSKI, Warszawski Uniwersytet Izvestja, 1889, No. 4, p. 19, 1889—based on *Rupicola peruviana* (not of LATHAM) TACZANOWSKI and BERLEPSCH, P.Z.S.Lond., 1885, p. 93, Machay and Mapoto, eastern Ecuador; CHAPMAN, Bull. Amer. Mus. N.H., 55, p. 547, 1926—Zamora, Macas region, Huilca (near Macas), Baeza, below Río Sardinias, below Oyacachi, and lower Sumaco, eastern Ecuador (crit.); SZTOLCMAN and DOMANIEWSKI, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 151, 1927—Mapoto (type in Warsaw Museum).

*Rupicola peruviana aurea* CHAPMAN, Bull. Amer. Mus. N.H., 31, p. 156, 1912—Salento, Central Andes, Colombia; idem, l.c., 36, p. 496, 1917—Salento, La Palma, Andalucía, near San Agustín, Buenavista, and "Barrigon," Colombia.

*Pipra peruviana* (not of LATHAM) GOUDOT, Mag. Zool., (2), 5, text to pls. 67-68, pp. 1-4, 1843—Río Combayma, Central Cordillera of Colombia (habits).

<sup>1</sup>*Rupicola peruviana aequatorialis* TACZANOWSKI: Similar to *R. p. peruviana*, but general coloration of males deeper orange and the gray on the apical portion of the tertials more restricted, not wholly concealing the blackish basal area.

The range of this form apparently extends south to northern Peru. Two adult males from Huayabamba, when compared with a large series from more northern localities, agree in the pattern of the tertials, but are perhaps—if anything—very slightly paler, less orange, than the majority from Colombia and Ecuador. Bogotá skins exhibit a large amount of variation, as far as intensity of coloration is concerned, and certain specimens closely approach *sanguinolenta*.

Material examined.—Colombia: Bogotá 14; Bucaramanga 1; San Agustín 2; La Palma 1.—Ecuador: below Baeza 6, near Baños 3.—Peru: Huayabamba, dept. San Martín 5.

*Rupicola peruviana* GOUDOT, Rev. Zool., 6, p. 1, 1844—Colombia (nest descr.); DES MURS, Mag. Zool., (2), 5, pl. 37, 1843—Colombia (egg descr.); JARDINE, Edinb. New Philos. Journ., (n.s.), 2, p. 118, 1855—part, towards base of the Eastern Andes, Ecuador; SCLATER, P.Z.S.Lond., 23, p. 126, 1855—Bogotá (range in part); idem, l.c., 26, p. 71, 1858—Río Napo; GOULD, l.c., 27, p. 99, 1859—Bogotá (crit.); SCLATER and SALVIN, l.c., 1867, p. 751—Chyavetas, Peru; idem, l.c., 1873, p. 285—Chyavetas; idem, l.c., 1875, pp. 237, 238—San Cristóbal, Táchira, Venezuela; WYATT, Ibis, 1871, p. 334—Potrerras, south of Ocaña, Santander, Colombia; TACZANOWSKI, P.Z.S.Lond., 1882, p. 24—Huambo; TACZANOWSKI, Orn. Pér., 2, p. 373, 1884—part, Chyavetas and Huambo; BERLEPSCH, Journ. Orn., 32, p. 306, 1884—Bucaramanga; TACZANOWSKI and BERLEPSCH, P.Z.S.Lond., 1885, p. 93—Mapoto, Machay, Sarayacu, Ecuador (crit.); BERLEPSCH, Zeits. Ges. Orn., 4, p. 184, 1887—Bogotá; SCLATER, Cat. B. Brit. Mus., 14, p. 370, 1888—part, spec. g-q, San Cristóbal, Bogotá, "San Lucas," Chiquinda, Chyavetas, Peru; SALVADORI and FESTA, Boll. Mus. Zool. Torino, 14, No. 362, p. 18, 1899—Chuquibamba, Río Zamora, Río Santiago, and San José, Ecuador; STONE, Proc. Ac. Nat. Sci. Phila., 1899, p. 306—"Nevada" de Tolima; GOODFELLOW, Ibis, 1901, p. 711—below Baeza, eastern Ecuador; MÉNÉGAUX, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B62, 1911—Río Napo, Ecuador; idem, Rev. Franç. d'Orn., 2, p. 8, 1917—Nuevo Loreto, Río Mixiollo, Huallaga drainage basin, Peru; LÖNNBERG and RENDAHL, Ark. Zool., 14, No. 25, p. 75, 1922—Baeza, Ecuador.

*Rupicola peruviana peruviana* HELLMAYR, Nov. Zool., 34, p. 11, 1925—northern Peru to Colombia.

Range: Extreme western Venezuela (San Cristóbal, state of Táchira); Central and Eastern Andes of Colombia; eastern Ecuador; and northern Peru, south to depts. Amazonas and San Martín (Chyavetas; Huayabamba; Nuevo Loreto, Río Mixiollo).

5: Colombia (Bogotá 2; La Palma, Huila 1; near San Agustín, Huila 2).

**\**Rupicola peruviana peruviana* (Latham). PERUVIAN COCK-OF-THE-ROCK.**

*Pipra peruviana* LATHAM, Ind. Orn., 2, p. 555, 1790—based on "Le Coq-de-Roche du Pérou" BUFFON, Hist. Nat. Ois., 4, p. 437, and DAUBENTON, Pl. Enl. 745, Peru; Chanchamayo, dept. Junín, suggested as type locality by CHAPMAN (Bull. Amer. Mus. N.H., 55, p. 547, 1926).<sup>1</sup>

<sup>1</sup>It is with considerable reluctance that I follow Dr. F. M. Chapman in the disposition of the name *peruviana*, since Buffon's specimen, the sole basis of Latham's description, is far more likely to have come from northern Peru (Maynas) than from the central provinces, then practically unknown. As explained elsewhere (Arch. Naturg., 85, A, Heft 10, p. 66, 1920), I do not attach much importance to the absence of the black portion of the tertials in Daubenton's plate 745, a feature that might easily be concealed in a mounted specimen. Since, however, the type no longer exists in the Paris Museum, it is perhaps preferable to accept Chapman's designation of Chanchamayo as final rather than to rename the central-Peruvian form.

*Rupicola peruviana* DUMONT, Dict. Sci. Nat., 46, p. 453, 1827—Peru (ex BUFFON); TACZANOWSKI, P.Z.S.Lond., 1874, p. 540—Soriano, dept. Junín, and (?) Monterico, dept. Ayacucho; idem, Orn. Pér., 2, p. 373, 1884—part, Soriano and (?) Monterico; BERLEPSCH and STOLZMANN, P.Z.S. Lond., 1896, p. 369—La Gloria, Garita del Sol, and San Emilio, dept. Junín.

*Rupicola peruana* TSCHUDI, Untersuch. Fauna Peru., Aves, p. 142, 1846—Peru, unquestionably dept. Junín.

Range: Central Peru, in depts. of Huánuco and Junín, possibly also Ayacucho (Monterico, east of Huanta).<sup>1</sup>

5: Peru, dept. Huánuco (Chinchao 2; Huachipa 2; mouth of Cayumba River 1).

***Rupicola peruviana saturata* Cabanis and Heine.<sup>2</sup> BOLIVIAN COCK-OF-THE-ROCK.**

*Rupicola saturata* CABANIS and HEINE, Mus. Hein., 2, p. 99, 1859—Bolivia.

*Rupicola peruviana* (not of LATHAM) LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 38, 1837—Yungas and Yuracares, Bolivia; D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 294, 1839—Yungas and east of Cochabamba, Bolivia; SCLATER, P.Z.S.Lond., 23, p. 152, 1855—part, Bolivia; SCLATER and SALVIN, l.c., 1869, p. 598—Cosnipata, dept. Cuzco, Peru; idem, l.c., 1879, p. 618—Yungas, Cochabamba, Simacu, and Tilotilo, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 370, 1888—part, spec. r-v, Simacu and Tilotilo, Bolivia.

*Rupicola peruviana saturata* BERLEPSCH and STOLZMANN, Ornith., 13, pp. 90, 114, 1906—Idma, above Santa Ana, Urubamba, and Huaynapata, Marcapata, dept. Cuzco, Peru; HELLMAYR, Arch. Naturg., 85, A, Heft 10, p. 66, 1920—Chaquimayo, dept. Puno, Peru (crit.); idem, Nov. Zool., 32, p. 11, 1925—southeastern Peru and Bolivia.

*Rupicola peruviana peruviana* CHAPMAN, Bull. U.S.Nat. Mus., 117, p. 100, 1921—Huiro, Idma, and San Miguel Bridge, Urubamba, Peru.

Range: Southeastern Peru (in depts. of Cuzco and northern Puno) and northern Bolivia (Yungas of La Paz and Cochabamba).

<sup>1</sup>Material examined.—Peru: Chinchao 2, Huachipa 2, mouth of Cayumba River 1; La Gloria, Chanchamayo 2, Vitoc 4.

<sup>2</sup>*Rupicola peruviana saturata* CABANIS and HEINE: Similar to *R. p. peruviana* in pattern of tertials, but coloration of males much redder, flame scarlet rather than orange chrome.

Birds from Cuzco and Marcapata agree with Bolivian specimens, while those from Idma, by slightly lighter coloring, diverge in the direction of the typical form.

Material examined.—Bolivia: Locotal, Yungas of Cochabamba 5; Songo, Yungas of La Paz 16.—Peru: Marcapata 5; Callanga, Cuzco 12; Ocobamba, Cuzco 1; Chaquimayo, Puno 1.



## FAMILY PHYTOTOMIDAE. PLANT-CUTTERS.

Genus **PHYTOTOMA** Molina.

*Phytotoma* MOLINA, Saggio Stor. Nat. Chili, pp. 254, 345, 1782—type by monotypy *Phytotoma rara* MOLINA.

\**Phytotoma rara* Molina. CHILEAN PLANT-CUTTER.

*Phytotoma rara* MOLINA, Saggio Stor. Nat. Chili, p. 254, 1782—Chile; LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 37, 1837—Chile (male and female descr.); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 293, 1839—Valparaíso, Chile; EYDOUX et GERVAIS, Mag. Zool., 8, cl. 2, pl. 86, 1838—anatomy; idem, Voy. Favorite, 5, Zool., Part 2, p. 64 bis, pl. 25, 1839—anatomy; EYDOUX and SOULEYET, Voy. Bonite, Zool., 1, p. 92, 1841—anatomy; DARWIN, Zool. Voy. Beagle, 3, Part 15, p. 106, 1841—central Chile; EYTON, l.c., p. 153, 1841—anatomy; BRIDGES, P.Z.S. Lond., 11, p. 113, 1843—Chile (habits); YARRELL, l.c., 15, p. 53, 1847—Chile (eggs descr.); TSCHUDI, Untersuch. Faun. Peru., Aves, p. 139, 1846—"Peru" (no locality specified);<sup>1</sup> DES MURS in GAY, Hist. Fis. Pol. Chile, Zool., 1, p. 363, 1847—Coquimbo to Chiloé, Chile; BIBRA, Denks. Math.-naturw. Kl. Ak. Wiss. Wien, 5, p. 130, 1853—lowlands, less common in the Cordilleras of central Chile; HARTLAUB, Naumannia, 1853, p. 214—Valdivia, Chile; BOECK, l.c., 1855, p. 505—Valdivia; CASSIN in GILLISS, U. S. Astron. Exp. So. Hemis., 2, p. 183, 1855—Valparaíso-Santiago Road, Chile; GERMAIN, Proc. Boston Soc. N.H., 7, p. 312, 1860—Chile (nest and eggs descr.); PELZELN, Reise Novara, Zool., 1, Vögel, p. 95, pl. 6, fig. 11 (egg), 1865—Chile; SCLATER, P.Z.S. Lond., 1867, pp. 327, 338—Chile; PHILIPPI, Anal. Univ. Chile, 31, p. 266, 1868—Chile; LANDBECK, Zool. Garten, 18, p. 260, 1877—Chile (habits); REED, Anal. Univ. Chile, 49, p. 553, 1877—Cauquenes; SCLATER, Cat. B. Brit. Mus., 14, p. 406, 1888—Colchagua and Valparaíso, Chile; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—"Mapiri, Bolivia" (errore); WAUGH and LATASTE, Act. Soc. Scient. Chile, 4, p. LXXXVI, 1894—Peñaflor, Santiago; idem, l.c., p. CLXXII, 1895—San Alfonso, Quillota; LATASTE, l.c., 5, p. XXXIV, 1895—Caillihue, Vichuquen; LANE, Ibis, 1897, p. 35—Hacienda Mansel, near Hospital, prov. Santiago, and Corral and Callecalle, prov. Valdivia, Chile; SCHALOW, Zool. Jahrb., Suppl., 4, p. 711, 1898—Santiago (nest and eggs descr.); HARTERT and VENTURI, Nov. Zool., 16, p. 206, pl. 3, fig. 8 (egg), 1909—dept. of Río Negro; DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 349, 1910—vicinity of Lake Nahuel Huapi, Neuquén; BARROS, Anal. Zool. Aplic. Santiago de Chile, 6, p. 11, pl. 2, 1919 (habits, food); idem, Rev. Chil. Hist. Nat., 24, p. 147, 1920—Valle de Nilahue, Curicó, Chile; idem, l.c., 25, p. 186, 1921—Los Andes, Aconcagua, Chile; PAESSLER, Journ. Orn., 70, p. 469,

<sup>1</sup>The description corresponds to the Chilean, not to the Peruvian species. The bird was doubtless obtained in Chile, where Tschudi stopped when on his way to Peru.

1922—Coronel, Chile (habits, nest and eggs); PETERS, Bull. Mus. Comp. Zool., 65, p. 326, 1923—Bariloche, Lake Nahuel Huapi, Río Negro; HOUSSE, Rev. Chil. Hist. Nat., 28, p. 49, 1924—Isla La Mocha, Chile; idem, l.c., 29, p. 146, 1925—San Bernardo, Chile; HELLMAYR, Nov. Zool., 32, p. 10, 1925—Valparaíso, Chile and Lake Nahuel Huapi, Neuquén; WETMORE, Univ. Calif. Pub. Zool., 24, p. 452, 1926—Bariloche, Río Negro.

*Phytotoma bloxamii* JARDINE and SELBY, Illust. Orn., 1, Part 1, pl. 4, Feb., 1827—Valparaíso, Chile; PIDGEON in GRIFFITH, Anim. Kingdom, 7, pl. facing p. 319, 1829—"South America"—Valparaíso; VIGORS, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 2, p. 3, 1832—Chile (note on female); MEYEN, Nov. Act. Acad. Leop. Carol. Nat. Cur., 16, Suppl., p. 89, 1834—Chile, particularly common . . . in the vicinity of Tacna (errore); LESSON Rev. Zool., 5, p. 136, 1842—Valparaíso (crit.).

*Phytotoma silens* KITTLITZ, Mém. Ac. Sci. St. Pétersb., (sav. étr.), 1, livr. 2, p. 175, pl. 1, 1830—near Valparaíso, Chile; CHROSTOWSKI, Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 13, 1921—type from Valparaíso in Leningrad Museum.

*Phytotoma rutila* (not of VIEILLOT) LAFRESNAYE, Mag. Zool., 2, cl. 2, pl. 5, 1832—Valparaíso and Santiago, Chile, and "Peru" (errore).

*Phytotoma molina* LESSON, L'Institut, 2, No. 72, p. 317, Sept., 1834—environs of Valparaíso, Chile (male and female descr.).

Range: Central Chile, from Coquimbo to Llanquihue, and adjacent districts of Argentina in the vicinity of Lake Nahuel Huapi, on the border line of Río Negro and Neuquén.<sup>1</sup>

16: Chile (Paiguano, Coquimbo 1; Santiago 1; Hacienda Gualpencillo, Concepción 1; Curacautín, Malleco 7; Mafil, Valdivia 2; Riñihue, Valdivia 1; Quellon, Chiloé Island 2; Río Nireguao, Llanquihue 1).

**\*Phytotoma rutila rutila Vieillot. REDDISH PLANT-CUTTER.**

*Phytotoma rutila* VIEILLOT, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 64, 1818—based on Azara, No. 91, Paraguay; LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 38, 1837—Corrientes (spec. in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 293, pl. 29, fig. 1, 1839—Rincón de Luna, near the Río Batel, Corrientes (descr. of immature male); BURMEISTER, Journ. Orn., 8, p. 245, 1860—Argentina; idem, Reise La Plata St., 2, p. 451, 1861—Paraná, Mendoza, Córdoba, Tucumán, and Catamarca (habits; female descr.); SCLATER and SALVIN, P.Z.S.Lond., 1869, p. 162—Buenos Aires; SCLATER (and HUDSON), l.c., 1872, pp. 537, 549—lower Río Negro; DOERING, Period. Zool. Arg., 1, p. 251, 1874—Río Guayquiraro, Corrientes; WHITE, P.Z.S.Lond., 1882, p. 609—Fuerte de Andalgala, Catamarca; BARROWS, Bull. Nutt. Orn. Cl., 8, p. 203, 1883—Concepción del Uruguay, Entre Ríos (nest descr.); SCLATER and HUDSON, Arg. Orn., 1, p. 164, pl. 8 (male, female),

<sup>1</sup>Three specimens from Lake Nahuel Huapi agree with a Chilean series.

1888—Argentina; SCLATER, Cat. B. Brit. Mus., 14, p. 407, 1888—Mendoza, Cosquin (Córdoba), Paraná, vicinity of Buenos Aires, and Río Negro; WITHINGTON, Ibis, 1888, p. 466—Lomas de Zamora, Buenos Aires; STEPELMANN and SCHULZ, Bol. Ac. Nac. Ci. Córdoba, 10, p. 403, 1890—Córdoba; KERR, Ibis, 1892, p. 131—Fortín Page, lower Pilcomayo; HOLLAND, l.c., 1893, p. 487—Santa Elena, Entre Ríos; KOSLOWSKY, Rev. Mus. La Plata, 6, p. 281, 1895—Chilecito, La Rioja; LILLO, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 188, 1902—vicinity of Tucumán; BAER, Ornith., 12, p. 221, 1904—Tapia and Santa Ana, Tucumán; LILLO, Rev. Letr. Cienc. Soc., 3, p. 51, 1905—vicinity of Tucumán; HARTERT and VENTURI, Nov. Zool., 16, p. 206, pl. 3, fig. 6 (egg), 1909—Cosquin (Córdoba), Tapia (Tucumán), and Barracas al Sud (Buenos Aires); DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 350, 1910—range in Argentina; BERTONI, Faun. Parag., p. 58, 1914—Paraguay; REED, Av. prov. Mendoza, p. 38, 1916—prov. Mendoza; SANZIN, El Hornero, 1, p. 151, 1918—La Paz and Alto Verde, Mendoza; DAGUERRE, l.c., 2, p. 269, 1922—Rosas, prov. Buenos Aires; SERIÉ and SMYTH, l.c., 3, p. 51, 1923—Santa Elena, Entre Ríos; GIACOMELLI, l.c., p. 72, 1923—La Rioja; PEREYRA, l.c., p. 169, 1923—Zeleya and Moreno, Buenos Aires; MARELLI, Mem. Min. Obr. Publ. (Buenos Aires) for 1922-23, p. 650, 1924—Buenos Aires; HELLMAYR, Nov. Zool., 32, p. 11, 1925—Corrientes; MÉNÉGAUX, Rev. Franç. d'Orn., 17, p. 326, 1925—Río Salado, near Icaño, Santiago del Estero; WETMORE, Bull. U.S. Nat. Mus., 133, p. 339, 1926—Las Palmas (Chaco), Riacho Pilaga (Formosa), Victorica (Pampa), and Potrerillos (Mendoza); TREMOLERAS, El Hornero, 4, p. 19, 1927—Rincón de Latorre, dept. San José, Uruguay; SANBORN, Auk, 46, p. 251, 1929—Estancia Concordia, s. w. of Dolores, Soriano, Uruguay.

*Phytotoma rutila rutila* PETERS, Bull. Mus. Comp. Zool., 65, p. 326, 1923—Río Colorado, Argentina; FRIEDMANN, l.c., 68, p. 209, 1927—Concepción, Tucumán.

*Phytotoma angustirostris* (not of LAFRESNAYE and D'ORBIGNY) LILLO, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 188, 1902—vicinity of Tucumán; BAER, Ornith., 12, p. 221, 1904—Tapia, Tucumán (spec. examined); LILLO, Rev. Letr. Cienc. Soc., 3, p. 51, 1905—vicinity of Tucumán.

Range: Argentina, from the Río Negro north to Catamarca, Tucumán, Chaco, Formosa, and Corrientes; the Paraguayan Chaco; Uruguay.<sup>1</sup>

<sup>1</sup>Specimens from eastern Argentina (Barracas al Sud, Buenos Aires; Corrientes) and Uruguay agree well together. All the birds I have seen from Córdoba and Tucumán are likewise referable to *P. r. rutila*. Certain examples with more white than usual on the lateral rectrices have no doubt given rise to the reported occurrence of *P. angustirostris* in northwestern Argentina. I have examined two skins from Tapia, Tucumán, so identified by the late G. A. Baer. They are, however, much smaller and have less white in the tail than a Bolivian series, and as the majority from Tucumán are identical with the average from eastern Argentina, they must undoubtedly go with *rutila*.

Material examined.—Uruguay: Near Dolores, Soriano 1.—Argentina: Corrientes 1; Barracas al Sud, Buenos Aires 4; Santa Elena, Entre Ríos 1; Mendoza 1; Cosquin, Córdoba 3; Tapia, Tucumán 6; Concepción, Tucumán 21.



22: Uruguay (Estancia Concordia, s. w. of Dolores, dept. Soriano 1); Argentina (Concepción, Tucumán 21).

**\*Phytotoma rutila angustirostris Lafresnaye and d'Orbigny.<sup>1</sup> BOLIVIAN PLANT-CUTTER.**

*Phytotoma angustirostris* LAFRESNAYE and D'ORBIGNY, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 37, 1837—La Paz, Bolivia (types in Paris Museum examined); D'ORBIGNY, Voyage Amér. Mérid., Ois., p. 292, pl. 29, fig. 2, 1839—La Paz, Cavari, Enquisivi, Palca, Sicasica, Ayupaya, Cochabamba, Mizque, Chuquisaca, Bolivia; SCLATER and SALVIN, P.Z.S.Lond., 1879, p. 619—Tilotilo, Yungas, and d'Orbigny's localities, Bolivia; SCLATER, Cat. B. Brit. Mus., 14, p. 407, 1888—Tilotilo, La Paz; (?) SALVADORI, Boll. Mus. Zool. Torino, 10, No. 208, p. 12, 1895—Chilcas, Salta; (?) idem, l.c., 12, No. 292, p. 17, 1897—Tala and Cara-huassi, Salta; LÖNNBERG, Ibis, 1903, p. 455—San Luis, Tarija, Bolivia; (?) DABBENE, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 349, 1910—Salta; HELLMAYER, Nov. Zool., 32, p. 10, 1925—La Paz, Bolivia (note on types).

(?) *Phytotoma rutila* (not of VIEILLOT?) BRUCH, Rev. Mus. La Plata, 11, p. 256, 1904—Orán, Salta.

Range: Mountainous parts of Bolivia, from La Paz to Tarija, and (?) extreme northwestern Argentina (prov. Salta).

7: Bolivia (Parotani, dept. Cochabamba 7).

**Phytotoma raimondii Taczanowski.<sup>2</sup> PERUVIAN PLANT-CUTTER.**

*Phytotoma raimondii* TACZANOWSKI, P.Z.S.Lond., 1883, p. 71, pl. 17 (male)—Túmbez, northwestern Peru; idem, Orn. Pér., 2, p. 395, 1884—Túmbez; SCLATER, Cat. B. Brit. Mus., 14, p. 408, 1888—Túmbez; ALLEN, Bull. Amer. Mus. N.H., 2, p. 88, 1889—"Valparaíso, Chile" (errore).

Range: Littoral of northwestern Peru, in depts. of Túmbez (Túmbez) and Libertad (Trujillo; Virú).

<sup>1</sup>*Phytotoma rutila angustirostris* LAFRESNAYE and D'ORBIGNY: Very similar to *P. r. rutila*, but larger, with stronger bill; lateral tail feathers more broadly tipped with white. Wing 94-100, (female) 94-97 (against 83-89, in *P. r. rutila*); tail 88-94, (female) 85-89; bill 12-13.

Sclater is quite wrong in describing the under parts of this form as "brownish red," since these parts, in the adult male, are just as deep cinnamon rufous as in the typical race. The larger size and the longer white tips to the tail, however, serve to distinguish it from its southern ally.

It is somewhat questionable whether *P. r. angustirostris* really extends into Argentina, since Salvadori, in referring Salta specimens to the present form, may have been misled by Sclater's key. In the absence of material, I am unable to decide the point.

Material examined.—Bolivia: La Paz (including the types) 13; Parotani, Cochabamba 7; Valle Grande 4; Samaipata 1.

<sup>2</sup>*Phytotoma raimondii* TACZANOWSKI: Readily distinguished from *P. rutila angustirostris* by its much more elongated bill; by lacking in the male sex the cinnamon rufous frontal patch and by having the foreneck, chest, and sides of the breast extensively mouse gray (instead of cinnamon rufous like the rest of the under parts). Wing 93, (female) 90; tail 90, (female) 82-84; bill 14.

Material examined.—Peru, dept. Libertad: Trujillo 1; Virú 2.

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